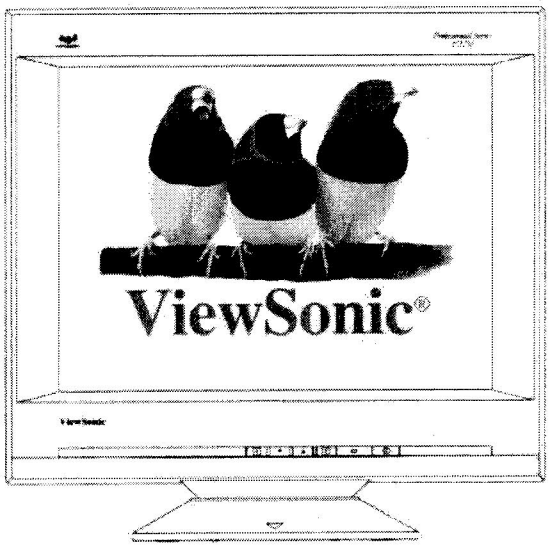
Service Manual

ViewSonic P225f

Model No. VCDTS22074-1

22" Digital Controlled Color Monitor
(20" viewable) Professional Series



(P225f_SM_ 216 - Rev. 1 – February 2001)

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Revision History

Revision	Date	Description Of Changes	Approval
1.0	2/1/01	Initial Issue – DCN1142	T. Sears

TABLE OF CONTENTS

TRADEMARKS, REGISTRATIONS, & SAFETY PRECAUTIONS ..... PREFACE

1. FEATURES ..... 1-1 ~ 1-2

2. SPECIFICATIONS 2-1

3. CONTROLS ..... 3-1 ~ 3-5

4. BLOCK DIAGRAM 4-1

5. WAVEFORMS ..... 5-1 ~ 5-3

6. THEORY OF OPEREATION ..... 6-1 ~6-17

7. TROUBLESHOOTING ..... 7-1 ~ 7-10

8. ADJUSTMENTS ..... 8-1 ~ 8-3

9. SPARE PARTS LIST 9-1

10. CRITICAL PARTS LIST 10-1

11. COMPLETE PARTS LIST ..... 11-1 ~ 11-33

12. DISASSEMBLY INSTRUCTIONS ..... 12-1 ~ 12-4

13. SCHEMATIC DIAGRAMS ..... 13-1 ~ 13-13

14. PCB LAYOUT DRAWINGS ..... 14-1 ~ 14-7

15. EXPLODED PARTS VIEW AND PARTS LIST ..... 15-1 ~ 15-4

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FCC Statement

This equipment has been tested and found to comply with the limits of Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and for if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause unacceptable interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the into an outlet on circuit different from that to which the receiver is connected.
- Consult the dealer or an experience radio/TV technician for help.

FCC Warning

To assure continued FCC compliance, the user must a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, unauthorized changes or modifications to ViewSonic products will void the user's authority to operate this device. Thus ViewSonic will not be held responsible for the product and its safety.

CE Certification

CE this device complies with the requirements of the ECC directive 89/3366/EEC with regard to "Electromagnetic compatibility."

Safety Guidelines

Caution: Use a power cable that is properly grounded. always use the AC cords listed below for each area

USA	(UL)
Canada	(CSA)
Germany	(VDE)
Switzerland	(SEV)
Britain	(BASE/BS)
Japan	(Electric Appliance Control Act)

In other areas, use AC cord which meets the local safety standards.

Chapter 1 Feature

1.1. On-View on-screen-display digital controlled

1.1.1. User friendly 4-key control and On Screen Display for finest screen adjustment:

- **CONTRAST**
- **BRIGHTNESS**
- **H-SIZE**
- **H-POSITION**
- **V-SIZE**
- **V-POSITION**
- **PINCUSHION**
- **PIN-BALANCE**
- **TRAPEZOID**
- **PARALLELOGRAM**
- **ZOOM**
- **TILT**
- **VIEWMETER**
- **CONVERGENCE**
- **V-LINEARITY**
- **HOOKING**
- **FOCUS**
- **COLOR**
- **PURITY**
- **OSD CONTROL**
- **MOIRE**
- **DEGAUSS**
- **LANGUAGE**
- **DATA RECALL**

1.1.2. Factory geometric settings for 12 preset timings.

1.1.3. Geometric settings for 6 user definable timings.

1.1.4. Factory setting for Color Temperature modes (5000°K, 6500°K,9300°K).

1.1.5. Auto-tracking for stable synchronize system.

1.2. Power-line-input operating range

90~132Vac/60Hz or 180~264Vac/50Hz universal

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1.3. DPMS (Display Power Management System)

1.3.1. The P220f-2 is compliant with Energy Star as well as VESA DPMS spec.

1.3.2. The power dissipation is less than 15 watts for Suspend/Standby mode and 3 watts for Off mode.

1.4. Operating Frequency range

The P220f-2 provides wide operating ranges of horizontal frequency from 30 to 110KHz and Vertical frequency from 50 to 180Hz. This range makes the P220f-2 to be compatible with most video timing standard such as VGA, SVGA, VESA, XGA, ... and etc. It supports up to 1024 x 768 @85Hz, 1280 x 1024 @85Hz and 1600 x 1200 @ 85Hz.

Chapter 2 Specification

CRT	MITSUBISHI, 22NF Diamondtron, 90 degree deflection. .25mm dot pitch, tinted, anti-glare, anti-static
Signal Input Interface	Video: RGB analog 0.7Vp-p/75ohm (1Vp-p with sync) Sync: H.V. Separate Sync H.V. Composite Sync (TTL Compatible) Sync on green
Synchronization	Horizontal: 30 to 110KHz for analog input Vertical: 50 to 180Hz Non-interlaced/interlaced for analog input
Connector	Signal: 15pin mini D-sub Power: 3-pole receptacle
Video Bandwidth	200MHz nominal
Nominal Display Area	396x297mm
Power Supply	90 ~ 264 Vac Universal
Power Consumption	170W max.
Power Saving	Suspend <15W OFF < 3W

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Chapter 3. Controls

Setting the Timing Mode

Setting the timing mode is important for maximizing the quality of the screen image and minimizing eye strain. The **timing mode** consists of the **resolution** (example 1280 x 1024) and **refresh rate** (or vertical frequency; example 75 Hz). After setting the timing mode, use the OnView® controls to adjust the screen image.

The recommended timing mode for this monitor is:
VESA 1600 x 1200 @ 85 Hz.

To set the Timing Mode:

1 Set the resolution: Right-click on the Windows® desktop > **Properties** > **Settings** > Desktop Area (Screen Area for Windows 95 and newer) > set the resolution.
2 Set the refresh rate: See your graphic card's user guide for instructions.

NOTE: To minimize the adjustments required for an optimal screen image, select a timing mode from the **Preset Timing Modes** table below.

Preset Timing Modes

VGA 640 x 400 @ 70 Hz	VESA 1280 x 1024 @ 85 Hz
VESA 800 x 600 @ 75 Hz	VESA 1600 x 1200 @ 75 Hz
VESA 800 x 600 @ 85 Hz	VESA 1600 x 1200 @ 85 Hz
VESA 1024 x 768 @ 75 Hz	VESA 1920 x 1440 @ 75 Hz
VESA 1024 x 768 @ 85 Hz	VESA (GTF) 2048 x 1536 @ 75 Hz
VESA 1280 x 1024 @ 75 Hz	Macintosh 1152 x 870 @ 75 Hz

WARNING: Do NOT set the graphics card in your computer to exceed the maximum refresh rates; doing so may result in permanent damage to your monitor.

Timing Modes with Maximum Refresh Rates

2048 x 1536 NI @ 79 Hz	1280 x 1024 NI @ 115 Hz
1920 x 1440 NI @ 84 Hz	1152 x 864 NI @ 135 Hz
1856 x 1392 NI @ 86 Hz	1024 x 768 NI @ 151 Hz
1792 x 1344 NI @ 89 Hz	800 x 600 NI @ 180 Hz
1600 x 1200 NI @ 99 Hz	640 x 480 NI @ 180 Hz

(NI = Non Interlaced)

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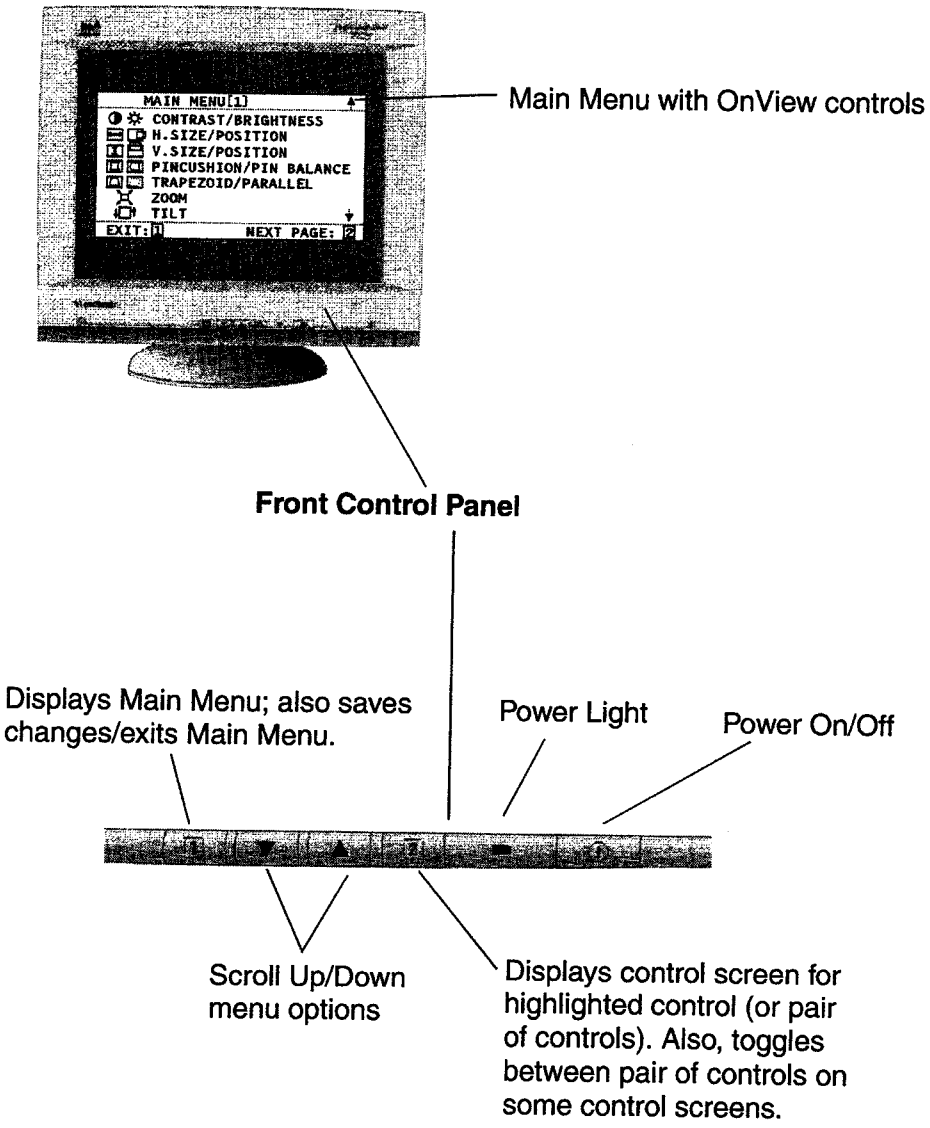
Adjusting the Screen Image

Beginning with the Main Menu shown below, use the buttons on the front control panel to adjust the OnView® controls which display on the screen. The OnView controls are explained in the four steps at the top of the next page and are further explained on pages 3-4 to 3-6.

IMPORTANT: The monitor should be warmed up for 30 minutes prior to making any adjustments.



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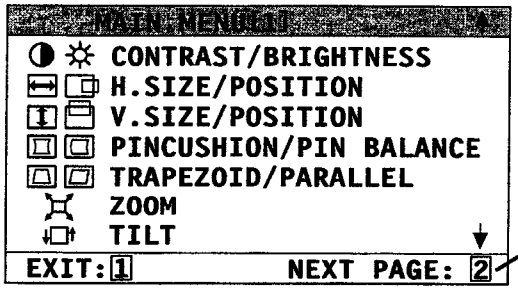
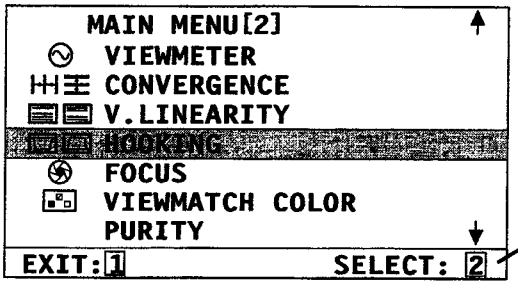
To adjust the screen image:

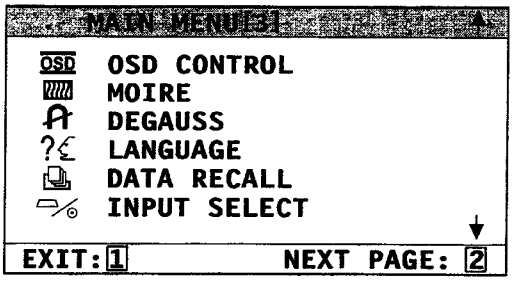
1 To display the Main Menu (parts 1-3 shown below), press button [1].



With Main Menu highlighted, as shown on the left, press button [2] to toggle to the next Main Menu.



With a control highlighted, button [2] displays a control screen for making adjustments.



2 To select a control you want to adjust, press the arrow buttons on the front control panel of your monitor (▼▲) and scroll through the choices. When the control you want to adjust is highlighted, press button [2].

NOTE: Some controls on the Main Menu are listed in pairs, such as Contrast/Brightness. Press button [2] to toggle between control pairs after displaying a control screen.

3 To adjust the selected control, press the arrow buttons (▼▲).

4 To save the control setting and Exit the menu, press button [1] *twice*.

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Main Menu Controls

The menu items shown below can be adjusted by using the arrow buttons (▲▼) on the front of your monitor.

Control	Explanation
	Contrast adjusts the difference between the image background (black level) and the foreground (white level). *Shortcut:* Before displaying the Main Menu, press ▼ or ▲ to display the Contrast/Brightness control screen.
	Brightness adjusts the background black level of the screen image.
	Horizontal Size adjusts the width of the screen image.
	Horizontal Position moves the screen image left or right.
	Vertical Size adjusts the height of the screen image.
	Vertical Position moves the screen image up or down.
	Pincushion straightens curves along the vertical edges of the screen image that bow inward or outward.
	Pin Balance straightens curves along the vertical edges of the screen image that bow in the same direction.
	Trapezoid adjusts the top and bottom of the screen image until they have equal length.
	Parallel slants the vertical edges of the screen image until they are parallel.
	Zoom expands and contracts the entire screen image.
	Tilt rotates the entire screen image.
	ViewMeter® displays information about the video signal coming from your computer's graphics card. This includes the **refresh rate** (or Vertical Frequency) and the **scan rate** (or Horizontal Frequency).

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Control	Explanation (Continued)
	H. Convergence (Horizontal Convergence) adjusts vertical color alignment. Use this control when red or blue borders are present around the vertical segments of black letters on a white background.
	V. Convergence (Vertical Convergence) adjusts horizontal color alignment. Use this control when red or blue borders are present around the horizontal segments of black letters on a white background.
	V. Linear (Vertical Linearity Center) adjusts the vertical distortion at the center of the screen image. **NOTE:** Vertical Linearity Center is an advanced control and should be used for setup and calibration only.
	V. Linear Sym (Vertical Linearity Symmetry) minimizes the distortion (squeezing or stretching) images between the top and bottom of the screen image. **NOTE:** Vertical Linearity Symmetry is an advanced control and should be used for setup and calibration only.
	Top Hooking straightens the top corners of the screen image.
	Bottom Hooking straightens the bottom corners of the screen image.
	H. Focus (Horizontal Focus) adjusts the sharpness of the screen image in the horizontal direction.
	V. Focus (Vertical Focus) adjusts the sharpness of the screen image in the vertical direction.
	ViewMatch® Color provides several color options: three preset color temperatures and User Color, which allows you to adjust red (R), green (G), and blue (B). The factory setting for this product is 9300K (9300 Kelvin). **9300K** — Adds blue to the screen image for cooler white (often used in office settings with fluorescent lighting). **6500K** — Adds red to the screen image for warmer white and richer red. **5000K** — Adds blue and green to the screen image. **User Color** — Individual adjustments for red, green, and blue.

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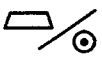
Control	Explanation (Continued)
	Purity adjusts the uneven color of the overall image. For example, if one area of a color appears darker than another area, first use the degauss feature. If color is still uneven, use the purity control.
	Top Left (Purity) adjusts uneven color at top left corner of screen.
	Top Right (Purity) adjusts uneven color at top right corner of screen.
	Bottom Left (Purity) adjusts uneven color at bottom left corner of screen.
	Bottom Right (Purity) adjusts uneven color at bottom right corner of screen.
	OSD Control allows you to designate the Time, Position, Color, and Appearance of the on-screen menus and control screens.
	Moire reduces interference patterns that appear as ripples, waves, or unwanted background color textures. Interference patterns of this type are most noticeable when viewing images having closely spaced lines or finely detailed patterns.
	Degauss removes the build-up of magnetic fields that can cause irregular colors to appear around the edges of screen images. Your monitor will degauss **automatically** each time you power it on. To degauss your monitor **manually,** select Degauss on the on-screen menu and press button [2]. **Important:** *Do not degauss repeatedly. Doing so can be harmful to the monitor.* Wait at least 20 minutes before using this control again.
	Language allows you to choose from among several languages for the menus and control screens: English, French, German, Italian, and Spanish.
	Data Recall returns adjustments to the original factory settings if the product is operating in a Preset Timing Modes (see the table at the bottom of page 11). *Exception:* This control does not affect changes made with the **User Color** control.
	**Input Select** allows you to toggle between two video-signal sources (D-Sub and BNC).

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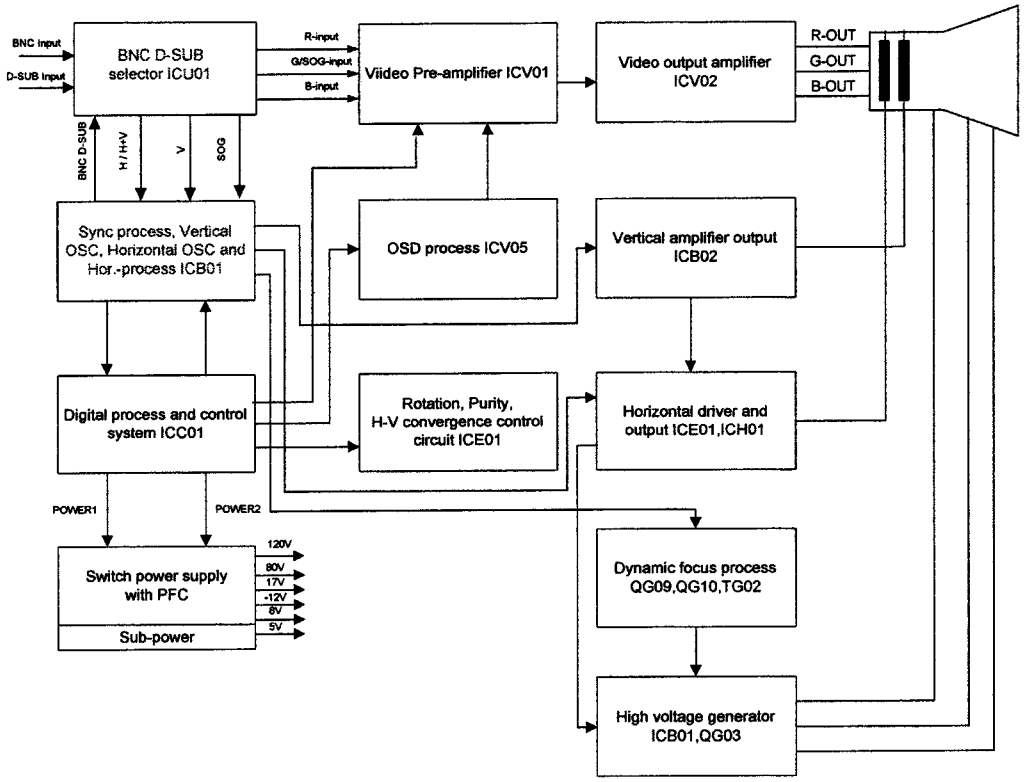
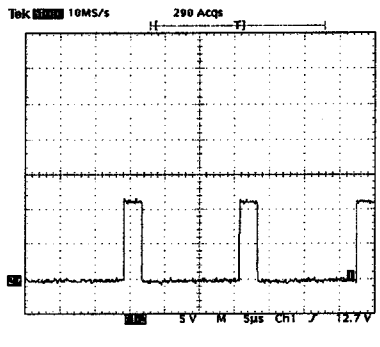
Chapter 4 Block Diagram



Chapter 5 Measured Waveform



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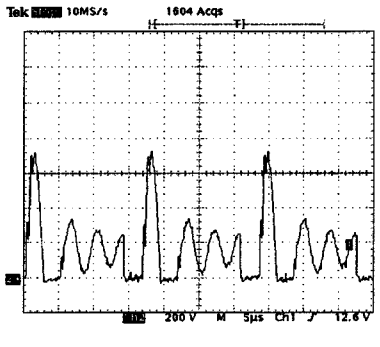

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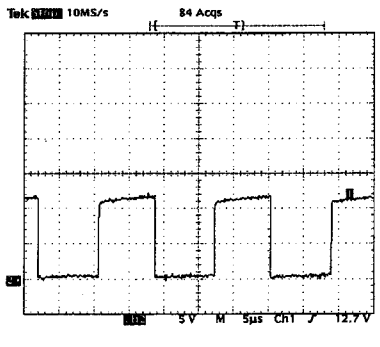

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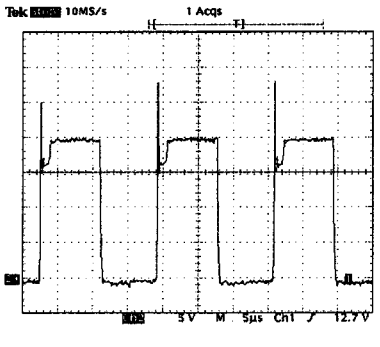

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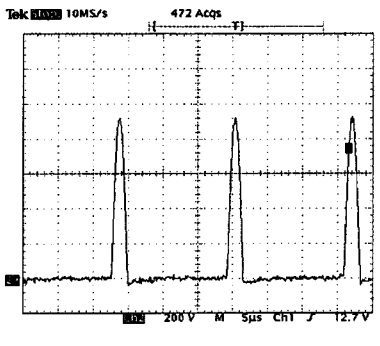

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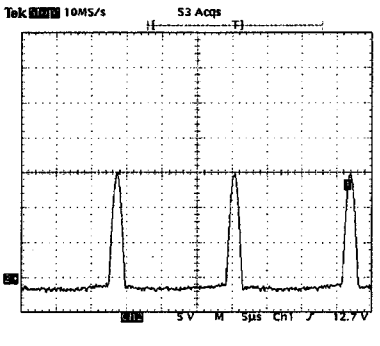

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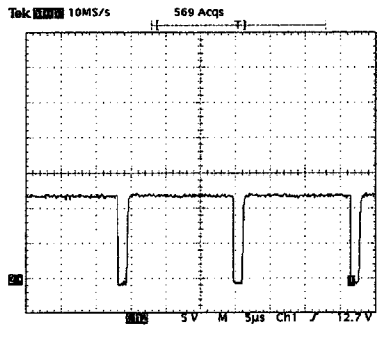

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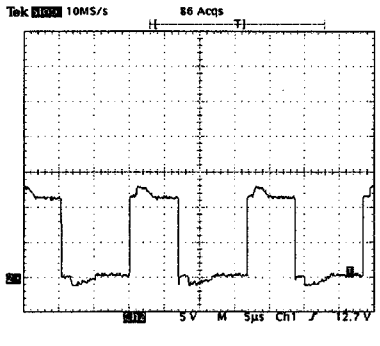

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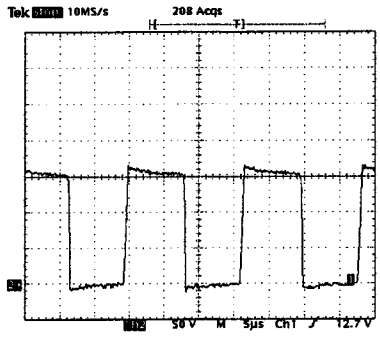

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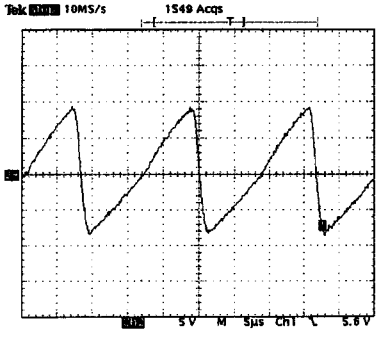

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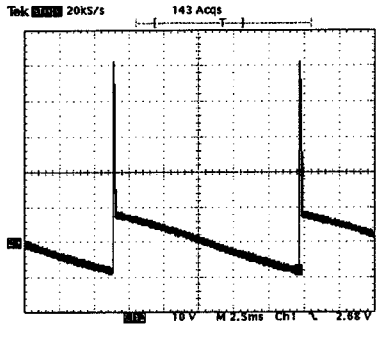

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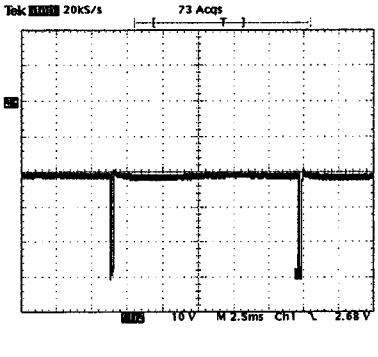

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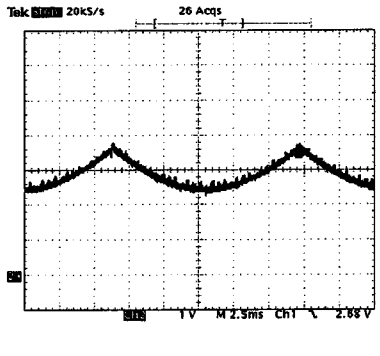

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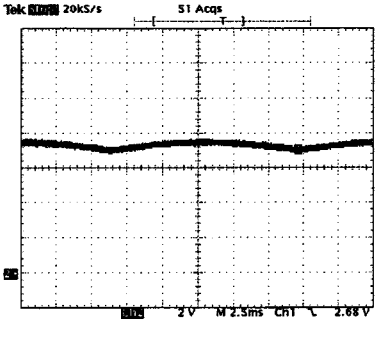

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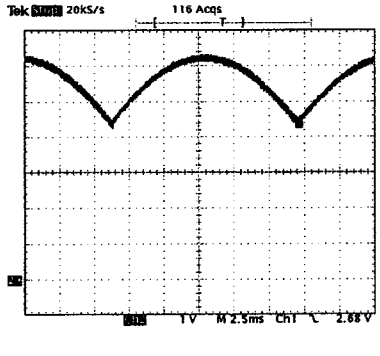

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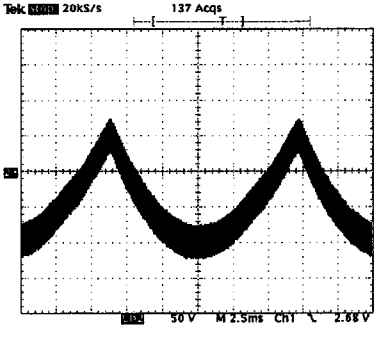

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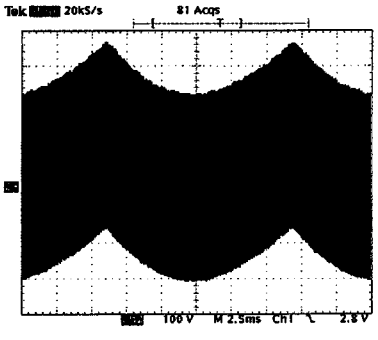

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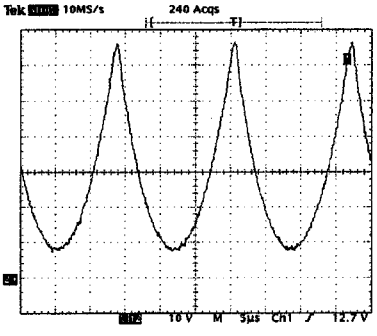

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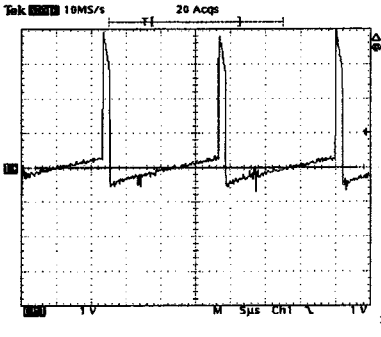

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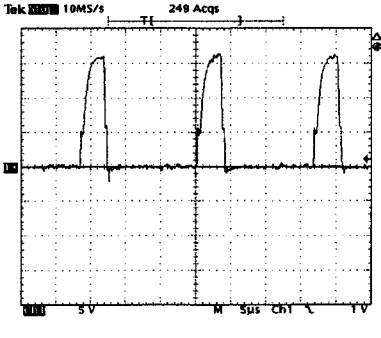

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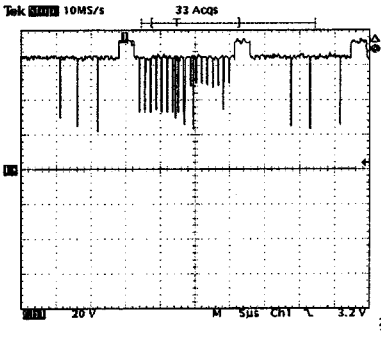

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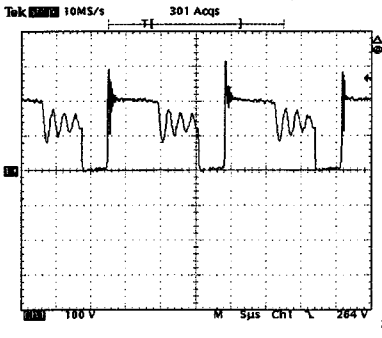

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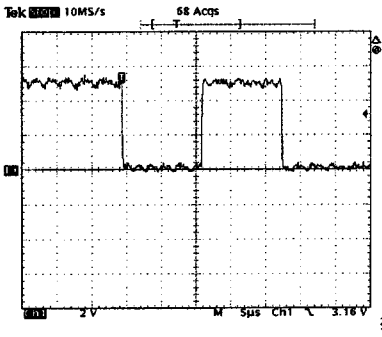
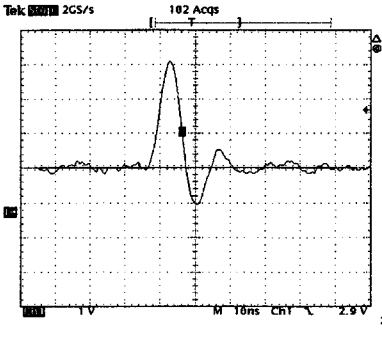


22 May 1997 14:44:08 **S23**



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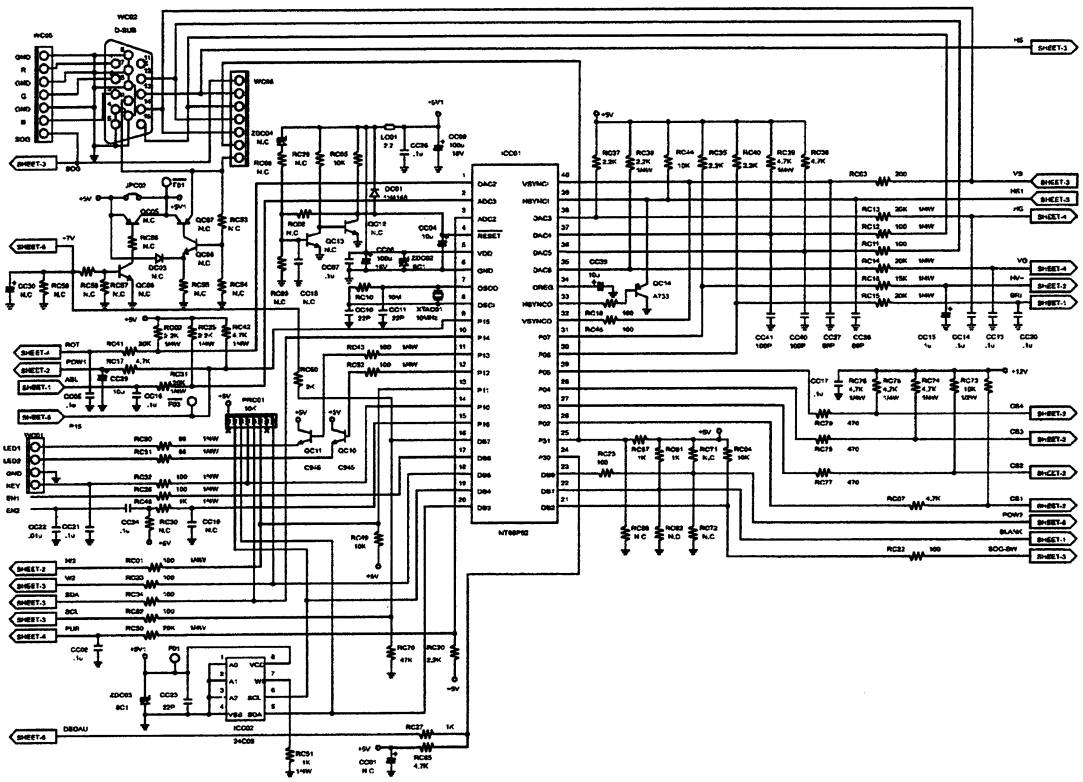
Chapter 6 Theory of circuit operation

6.1. Micro Controller System



The micro controller system is composed of the MCU, the serial E2PROM, the voltage monitor circuit, the encoder signal reshaping circuit.

6.1.1. The MCU (ICC01, NT68P62) mainly provides the following functions:

6.1.1-a. Detect the system input signals and send proper control signals via general purpose I/O pins.

6.1.1-b. Output 6 PWM's to adjust the voltage controlled functions such as BRIGHTNESS, TILT,..,etc.

6.1.1-c. Control the following characteristics of the deflection IC TDA4856 and the video pre-amp M52742 via I2C bus:

- **TDA4856:**
  1. H- SIZE,H-POSITION
  2. V-SIZE,V-POSITION
  3. PINCUSHION, PIN-BALANCE
  4. TRAPEZOID, PARALLELOGRAM
  5. H-CONVERGENCE, V-CONVERGENCE,
  6. V-LINE-CEN, V-LINE-SYM
  7. HOOKING

8. FOCUS
9. MOIRE
10. HD-DUTY
11. Internal video clamping pulse position & width

- **M52742:**
  1. Contrast, OSD Contrast
  2. R,G,B gain
  3. R.G.B. cut off

6.1.1-d. Control the OSD IC D1642 via IIC bus to display the monitor status.

6.1.1-e. Detect the input sync characteristics via TDA4856, identify the input timing, read the according settings in the E2PROM and then send proper controls such as CS-switch, LEDs display, Contrast, Brightness, H-Size, H-Pos, ..., etc.

6.1.1-f. Set and detect the ADC input signal "KEY" of the display board to implement the keypad control.

6.1.1-g. Provide the DDC1/2B/2B+ interface to PC system and auto-alignment system.

The serial E2PROM ICC02 (24LC08) reserves the non-voltage monitor parameters, factory alignment result, user adjusting result, user defined timing characteristics, ..., etc.

The propose of the voltage monitor circuit composed by DC01,RC05,CC04 is to keep the MCU working normal when the supply voltage is unstable. It is done by resetting the MCU while the supply voltage drops.

6.2. High Voltage Control Circuit

High Voltage Control Circuit is working basically by using switching theory with the main component ICB01 (TDA4856).

6.2.1. Circuit operating theory is explained as following:

6.2.1-a. When Power ON and the DC level of pin6 of ICB01 (TDA4856) exceeding 0.6V, ICB01 starts to work and the oscillate frequency is synchronized to HD.

6.2.1-b. When ICB01 is working normally the output square wave of pin4 ***as figure S1*** will turn on QG03. The ON/OFF cycle of QG03 will make the primary of FBT (pin 1 ~2) acted like a Switching Power X'FMR ***as figure S2.***

6.2.1-c. AFC signal ***as figure S6*** is feed via RB01 to synchronize the oscillator of ICB01. Then, the high voltage will be always synchronized with horizontal deflection.

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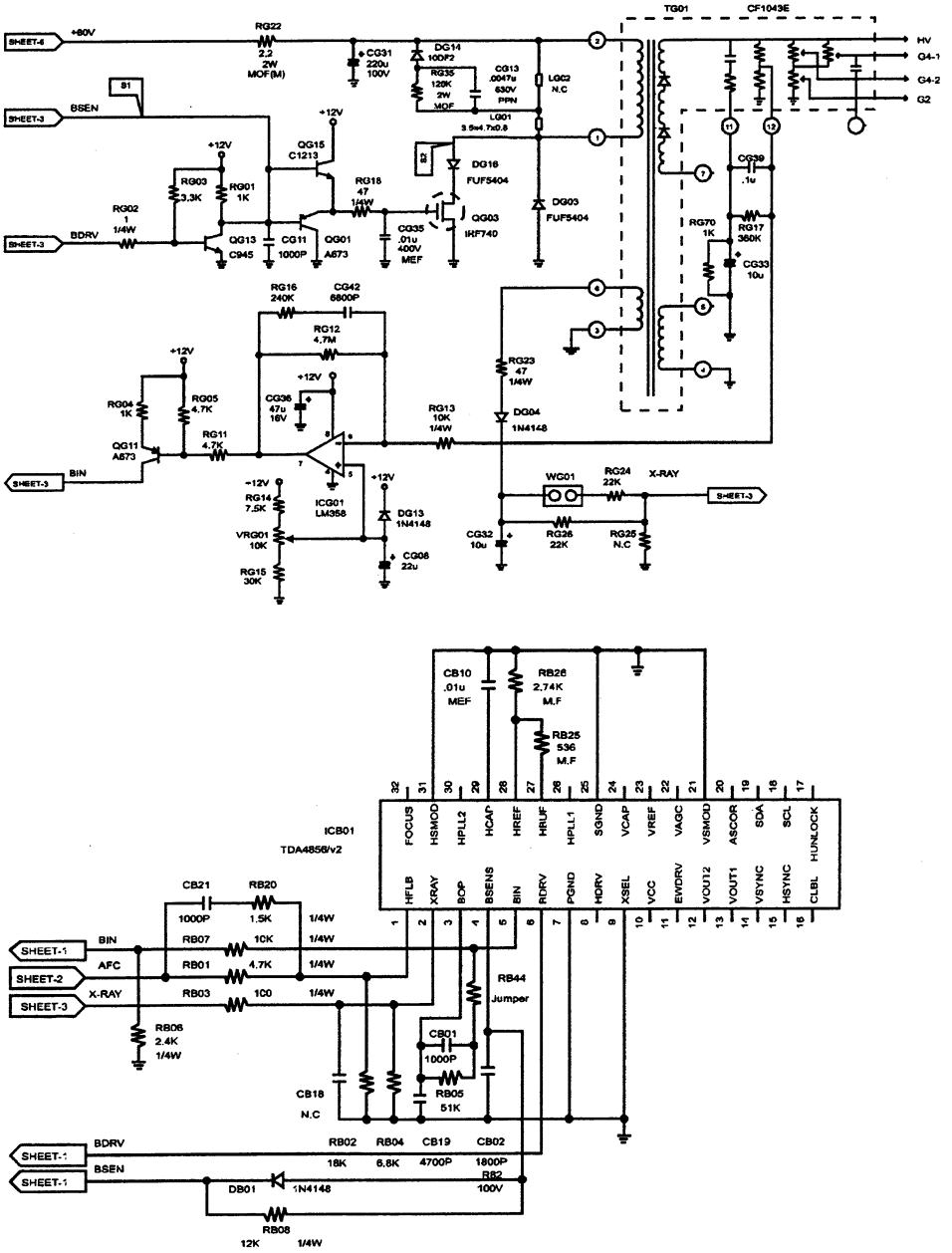
6.2.1-d. Usually loading change will cause unstable condition, so a high voltage feed back system is designed to maintain the stability of the high voltage circuit. This feed back system is started from voltage sensor on the pin11 of the FBT. The sensed voltage compares with the reference voltage on pin 5 of ICG01 and the difference is amplified then feed back to ICB01 to keep the HV stable.



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6.2.2. LM358 OP2 is controlled by following factors:

6.2.2-a. A feed back reference voltage circuit that consists of RG14, VRG01, and RG15 to adjust the high voltage.

6.2.2-b. When horizontal deflection is no function, there is no sensed current on TH02 and no voltage on CH07 (A1). Then ICG02 will pull down high voltage to protect CRT. After H-deflection circuit start to work properly, A1 voltage increases gradually and the output of ICG02 will become high to release the reference voltage of HV circuits. Then HV will raise up softly due to CG08.

6.3. X-RAY High Voltage Protection CKT

X-RAY High Voltage Protection CKT is to get a DC level voltage by utilizing the output waveform of FBT's pin6 to pin3 (GND) via a rectifier consists of DG04, CG32. This DC level voltage triggers to the pin2 (X-RAY) of ICB01 TDA4856 to stop HD output. The threshold X-RAY protection voltage is 6.4 volts. If the trigger voltage is higher than the threshold voltage, HD output on the pin8 of ICB01 will be turned off. As soon as the HD signal is off, then horizontal deflection is off and the high voltage is also off.

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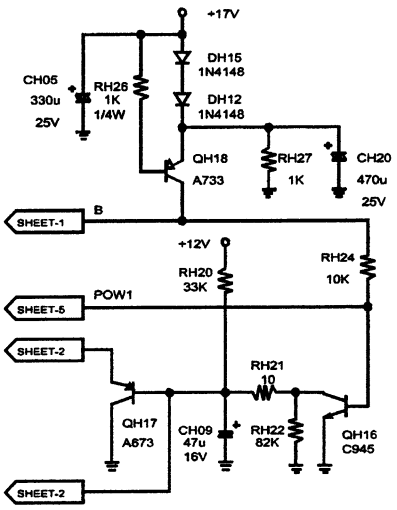
6.4. Soft-Start & Power Off Protection CKT & Suspend Control CKT



6.4.1. Soft-Start:

During the instant period of power on, unstable condition of horizontal deflection will easily damage components. So, Soft-Start is designed to control such an unstable condition.

When power on, during the period that 12 volts increases from 0 volts to 12 volts, the DC level of QH17 is controlled by RC Constant circuit RH20 and CH09.

QH17 controls the level at pin5 of ICH01 LM555. The width of the duty cycle at pin3 of ICH01 LM555 will be gradually increased. Until the CH09 is fully charged, QH17 keeps off .

6.4.2. Power Off Protection CKT:

In order to quickly turn off the B+ of horizontal deflection when power is off, QH18 and related ckts are used.

When power off, the 17 volts decreases and the base level of QH18 is dropped, quickly to turn the transistor ON. Then " B " signal goes high to turn OFF H-Deflection and stimulates all protection ckts.

6.4.3. Suspend Control CKT:

When entering Suspend Mode will send out a high level on POW1 to make:

6.4.3-a. QH16 is on and CH09 is discharge through QH16, then QH17 is on turns ICH01 and H-deflection B+ off. Since CH09 is discharge through QH16, the Soft-Start works when B is low level.

6.4.3-b. When H-deflection is turned off. A1signal will shut down HV circuit as described in sec.

When monitor is from suspend back to normal mode, A1 is low level B and QH16 are off. The output is back to normal when CH09 makes Soft-Start worked and ICH01 is not controlled by QH17. So, Horizontal deflection and high voltage work normally.

6.5. Video-Amplifier/On-Screen-Display

The video amplifier system consists of the Pre-Amplifier, the Video-Power-Amplifier, and the Cutoff-Voltage-Adjusting circuits.

6.5.1. The functions of the Pre-Amplifier ICV01(M52742) include:

6.5.1-a. The small signal video amplifier controlled by MCU via I2C bus for the features of contrast (main gain control), output DC level 3 sub gain controls (R-Gain, G-Gain, B-Gain), clamping pulse source (AFC) and the clamping pulse width.

6.5.1-b. The OSD mixer processes the OSD-BI, OSD-RI, OSD-GI on Pin2, 3, 4 and the OSD BKG input on Pin1 and the OSD contrast is controlled by MCU via I2C bus.

The Video-Power-Amplifier ICV02 is a 3-channel hybrid-IC which functions as a cascade type transistor amplifier to reach the high bandwidth performance.

The Cutoff-Adjusting circuit consist of ICV06, QV04, QV05, QV06 is to provide the function of dark/background white-balance control by varying the peak voltages on the CRT cathodes. (Only R, G, B guns)

ICV05 (D1642) serving as the OSD generator outputs the R, G, B, FBKG signals that contain the information by which the MCU shows the monitor's status and the user adjusting indications. The R, G, B, FBKG signals are synchronized by the horizontal and vertical deflection sync input on Pin5 and Pin10. The MCU controls the OSD via the signals SDA, SCL on pin7,8.

(the schematic diagram refer to **VIDEO Schematic Section)**

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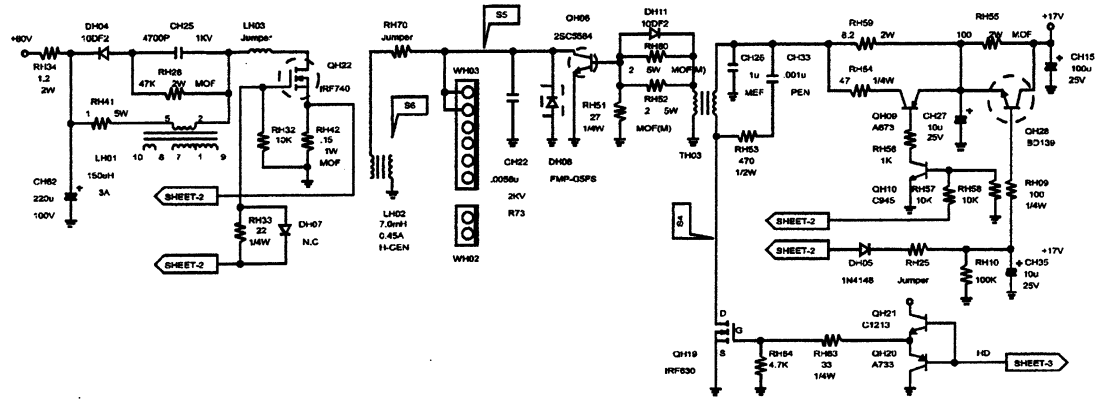
6.6. Horizontal Deflection Driving Circuit



6.6.1. HD signal ***as figure S3*** is output from pin8 of ICB01 TDA4856 and through QH20 and QH21 to drive QH19 IRF630 and TH03. ***Refer to figure S4***

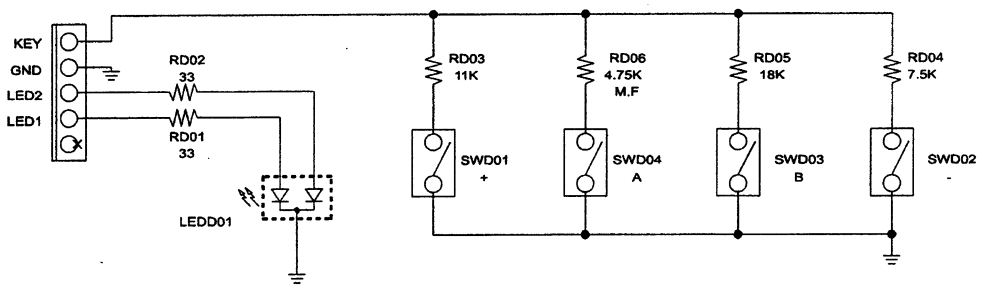
6.6.2. TH03 controls the driving current via DH05, CH35, QH28 and related circuits.

6.6.2-a. ICC01 H/2 control the reference voltage via QH10.

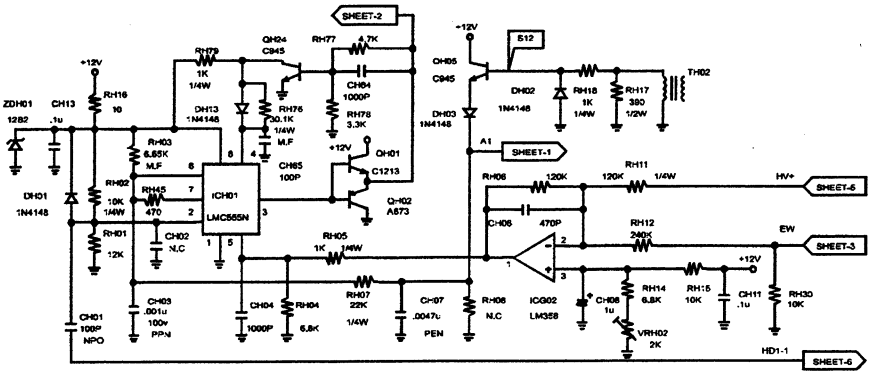
6.6.3. Through above items a and utilizing TH03 to drive QH06, the LC oscillation circuit that consists of defection coil CH22 and DH08 works. ***Refer to figure S5***

6.7. Display Circuit

The display board includes the LED driving circuit (MCU controlled by LED1 and LED2 to drive, key detecting circuit (SWD01, SWD02, SWD03, SWD04 to MCU ADC input).



6.8. Horizontal Deflection B+ Control Circuit



6.8.1. ICH01 Trigger circuit:

ICH01 is via RH03, RH45, RH07 and CH03 to get RC oscillation. The frequency is decided by the trigger at pin2. The pin5 controls the duty width of output waveform. ICH01 Trigger CKT is mainly controlled by the following:

6.8.1-a. Trigger composite circuit: Signal ***as figure S3*** is composition of HD via QH20 and QH21. HD is square waveform.

6.8.1-b. Reference voltage waveform: ICG02 OP1 controls it.

6.8.1-c. Trigger output circuit: OP1 combines above circuit.

6.8.2. Operating description:

6.8.2-a. At the power on moment, the horizontal deflection is not working, so the trigger signal HD is differentiated .by CH01 and RH01, then feed to pin2 of ICH01. QH17 controls pin5 of ICH01 and make the output duty width at pin3 of ICH01 increased gradually and drive QH22 via TH01. ***Refer to figure S8.***

6.8.2-b. After QH22's driven, the B^+ ***as figure S9*** is output to LH02 and the horizontal deflection starts operation.

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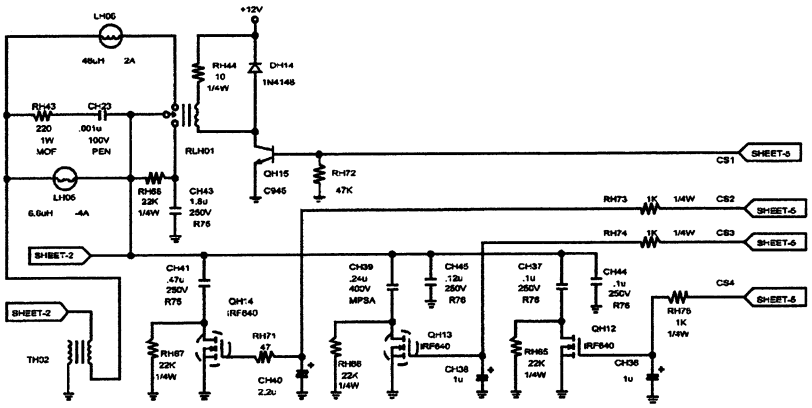
6.8.2-c. The horizontal deflection works steadily after above 1 to 3 steps are completed.

6.8.2-d. ICH01 LM555 is a mono stable oscillator. In high frequency, the trigger Duty may be double triggered and makes the output frequency dropped when the trigger Duty is smaller than the output Duty width, thus there is no enough B^+ for horizontal deflection. In order to have enough B+ and precise output Duty in the high frequency, QH01/QH02 output is differentiated via CH64, RH77 and RH78 and triggers QH24 to limit the output Duty at pin4 of ICH01. ***Refer to figure S7***

6.9. Horizontal Linearity Compensation Circuit



This circuit is designed to minimize the horizontal linearity variations in different horizontal frequency. There are two parts in this circuit:

6.9.1. Inductance compensation circuit:

The main component is LH06 (Linearity coil). The compensation circuit consists of QH15.

6.9.2. Capacitance compensation circuit:

CH44 is Cs capacitors. QH13 controls CH39, QH14 controls CH41. QH12 controls CH37 **ICC01 NT68P62** pin29 (CS4), pin28 (CS3), pin27(CS2) and pin26(CS1) controls QH13, QH12 and QH14 respectively. So, different frequency has different combination to meet the requirement.

For example: When frequency is 31KHz, ICC01 makes CS1~CS4 in high level. Thus, QH13 and QH15 Drain-Source is on to make the Cs capacitance equal to

CH45+CH44+CH39+CH41=0.082μF+0.1μF+0.39μF+1.2μF+0.15μF+0.082uF=2.004μF.

6.10. H-Size Pincushion Control CKT

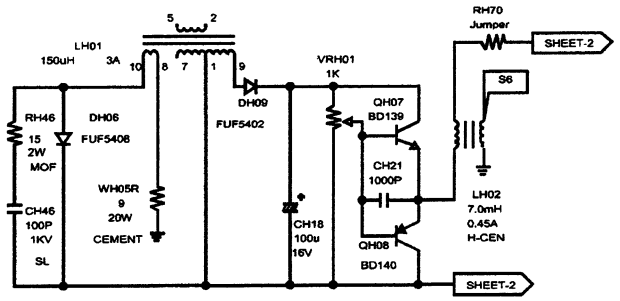
H-Size & Pincushion are used to control B+ that will change the horizontal deflection amplitude. To control B^+, the amplitude at ICH01 pin5 and the Duty width at ICH01 pin3 have to be changed. So ICH01 pin5 connects the control CKT that consists of ICG02 OP1. The reference level and waveform are mixed by ICG02 and send to ICH01 pin5.

6.10.1. VRH02 is mainly to preset the H-Size of each mode, and ICC01 pin31 is to change each specified mode.

6.10.2. In the Pincushion control, a parabolic waveform ***as figure S13*** is from pin11 EWDRV of ICB01 TDA4854 and into ICG02 OP1 to create a output parabolic waveform. ***as figure S14***

6.11. H-Center Control Circuit

H-Center is designed to adjust the Raster's center position by using the secondary current of LH01. This current is rectified through DH09, CH18 and to generate a DC current that will through the adjustment of RH38, VRH01 and RH39. Finally, the current is through the emitter follower, QH07 and QH08, and into LH02 to increase and decrease the horizontal deflection current.



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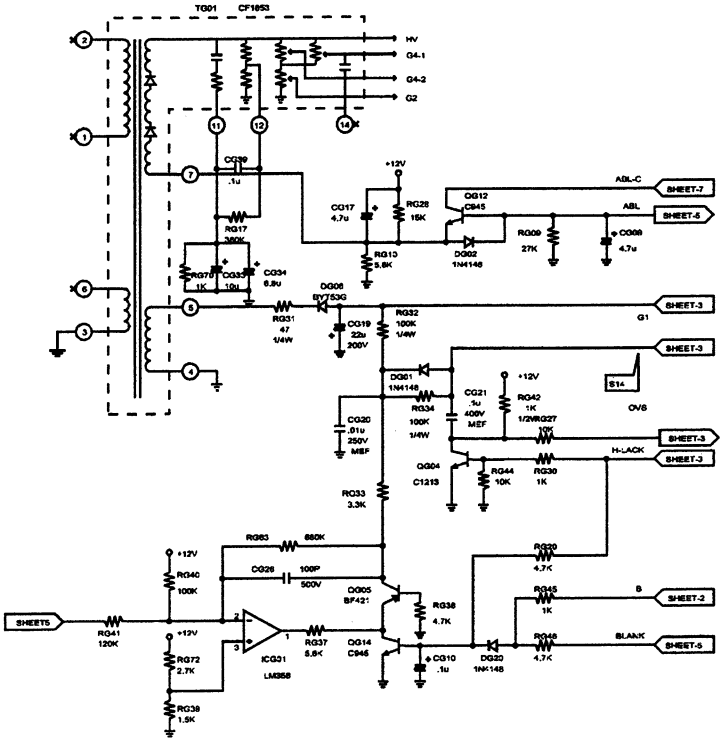
6.12. Brightness Level Reset Control CKT



Change the Brightness level by controlling the G1.

6.12.1. In normal working condition, the G1 waveform is synchronized with the vertical sync waveform ***as figure S12***. Since the purpose is to blank the vertical flyback scanning line when vertical is flyback, so the HLACK vertical deflection waveform through RG44, QG04 is used to control it.

6.12.2. Brightness control is via the control at pin30 of ICC01 (NT68P62) pin30 and through the control at ICG01(LM358) OP1 and QG05 to control the DC level of G1.

6.12.3. When frequency is changed, the pin22 Blank of ICC01 will output a high level to RG46,DG20 to make QG14 on. In the same time, thus QG05 off and to get G1 voltage -180V and to blank the screen. After the frequency changed, the pin22 of ICC01 will output a low Level to make QG14 OFF. In the same time, QG05 is not controlled by the pin22 of ICC01 and the Brightness control works normally.

6.12.4. When mode changes from power on to suspend, B will output a high level to make QG14 and QG03 on. QG05 base has positive signal to make QG05 off, to get G1 -180V and to blank the screen.

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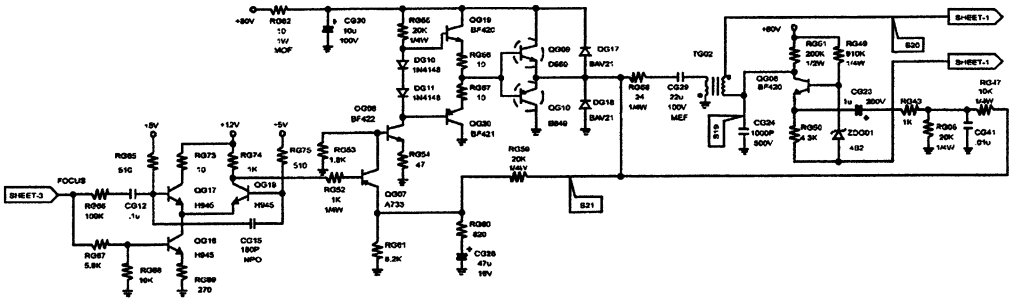
6.13. Focus CKT



Dynamic Focus is used to get perfect focusing of each dot on the screen.

6.13.1. There are H-Focus and Focus (H and V):

6.13.1-a. Focus(H) ***as figure S18***: ICB01 pin32(Focus) outputs a parabolic waveform and through RG52 and QG07 into QG08 to get a reverse amplified waveform. This waveform is via the emitter follower, QG09 and QG10, as a current gain then input into TG02.

6.13.1-b. Focus(V) ***as figure S16***: ICB01 pin32 outputs a parabolic waveform. This Waveform is amplified by QG06 and input into TG02.

6.13.1-c. Focus (H and V) are into TG02 to get a combined output waveform that will input to FBT pin9.

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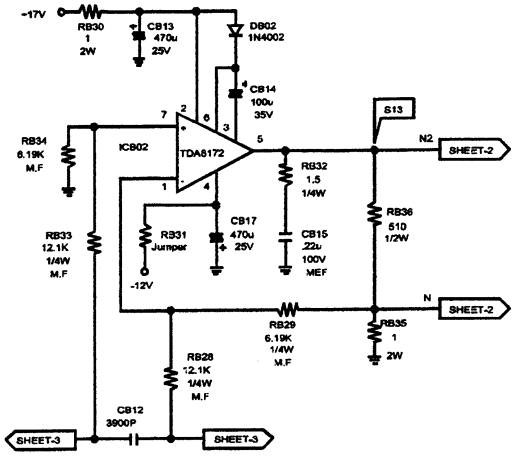
6.14. Vertical Deflection CKT



6.14.1. Vertical deflection Saw-tooth waveform is provided by ICB01 pin12 (VOUT2) and amplified by TDA8172.

6.14.2. A voltage multiplier, connected to pin3 and pin6, consists of DB02 and CB21 is designed to avoid flyback scanning line appeared during the vertical flyback period.

6.14.3. ICB01 pin13 (VOUT1) provides a DC level to CB05, RB23, bCB06 as a V-Position control voltage. As long as pin13 DC level changed, V-Position is also changed.

6.14.4. Vertical Deflection Wave ***as figure S11***

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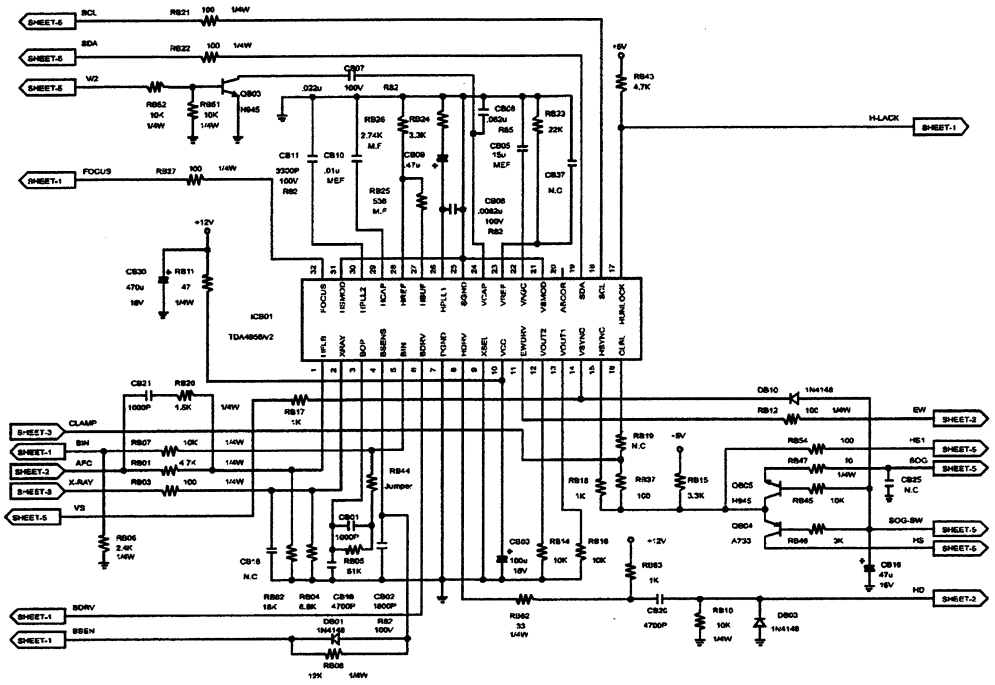
6.15. TDA4856 Circuit

The ICB01 (TDA4856) acts as a key component processing small signals for deflection circuits. The functions of TDA4856 include:



6.15.1. Synchro Processor

6.15.1-a. Capability to accept separate H/V(pin15, pin14) which could be selected by MCU via I2C control(pin18,19).

6.15.1-b. Status register with sync polarity, existence, locking states could be read by MCU via I2C.

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6.15.2. Horizontal part:

6.15.2-a. Wide self-locking range with 27 to 96KHz of HPLL1 to lock the HD frequency to H-sync input. The values of RB25(pin27) and CB09,RB27(pin28) decides the free run frequency(27KHz)

6.15.2-b. The H-phase control by MCU via I2C is also done at the HPLL1 stage.

6.15.2-c. The HPLL2 (pin30) locks the horizontal deflection via AFC (pin1) and provides the functions of dynamic phase controls(Pin-Balance and Parallelogram, internal) control by MCU via I2C.

6.15.2-d. The I2C controlled Focus of Amplitude is output on pin32 and amplified to compensate the horizontal dynamic focus.

6.15.3. Vertical part:

6.15.3-a. The DC voltage of the V-ramp is output on pin12, 13 to ICB02 to be the reference voltage of the amplifier.

6.15.3-b. Vertical parabola generator with I2C controlled amplitude, keystone, S-curve and cupid-bow output on pin31 to the horizontal deflection CKT to compensate the pincushion-like distortion.

6.15.3-c. Focus output on pin32 to be amplified to compensate the vertical dynamic focus.

6.15.3-d. Internal geometry tracking with V-Pos and V-Amp.

6.15.4. Others

6.15.4-a. HUNLOCK status on pin17 to protect H deflection CKT.

6.15.4-b. X-ray protection input on pin2.

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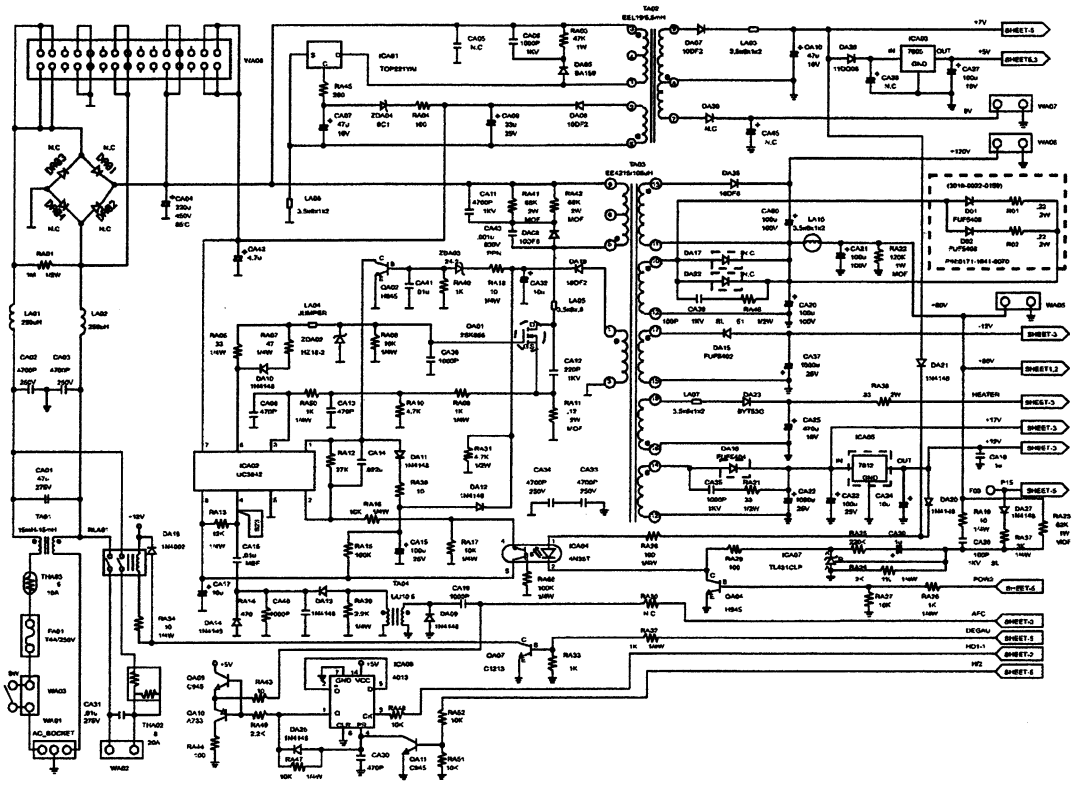
6.16. Power Supply Working Theory



ICA01 and ICA02 consist of a Current Mode Switch Power Supply and provides +80V, +70V, +5V, +17V, -12V and Heater voltage.

6.16.1-a. ICA01 and TA02 are auxiliary power source. ICA01 consists of PWM and Power MOS with an internal oscillate frequency 100KHz and combines with TA02 to provide +5V output. The +17V is through TA02 pin2 and rectified by DA07 to provide ICA02 working voltage and is fed back through ZDA02 into pin C to get a stable output voltage.

6.16.1-b. ICA02, QA01 and TA03 are main power source. ICA02 uses PWM to drive QA01 and TA03 to generate each output voltage. The output voltage is fed back via +80V to ICA07 TL431, then coupled to ICA02 pin 2 via ICA04 4N35 to make +80V stable. TA04 accepts AFC signal to make Power Supply's working frequency synchronized with the horizontal frequency.

6.16.1-c. ZDA03 and DA12 consist of the over-voltage protection circuit.

6.16.1-d. When output voltage is much higher than normal value or the feed back voltage is abnormal, in order to get protection, the output at pin9 of TA03 raises to the level that ZDA03 is on to trigger QA12 that makes ICA02 pin1 grounded.

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6.17. Power Factor Correction Circuit

Power factor circuit is working for correcting the active current of AC input to reduce the harmonic current The output voltage is limited under 400 vdc. **(the schematic diagram refer to PFC Schematic Section)**

6.17.1. ICP 01 is a controller for power factor correction pre converter. It is designed to drive a free frequency discontinuous mode of following boost converter.

The output voltage feedback to pin#1 to sense and limit the output voltage is under 400 V dc on cp10.

The zero current detection prevents any restart as long as the pin#4 voltage is below (-60 mv). This pin is al50 used to limit the peak current. The over current thre shold is programmed by the resistor of RP08.

6.17.2. ZDP02, QQP04, QP05 and ZDP03 consist of Vcc detection circuit. In case of the monitor is turning to sleep mode, this circuit is forcing the Vcc of Icp01 under the disable voltage and make ICP01 disable.

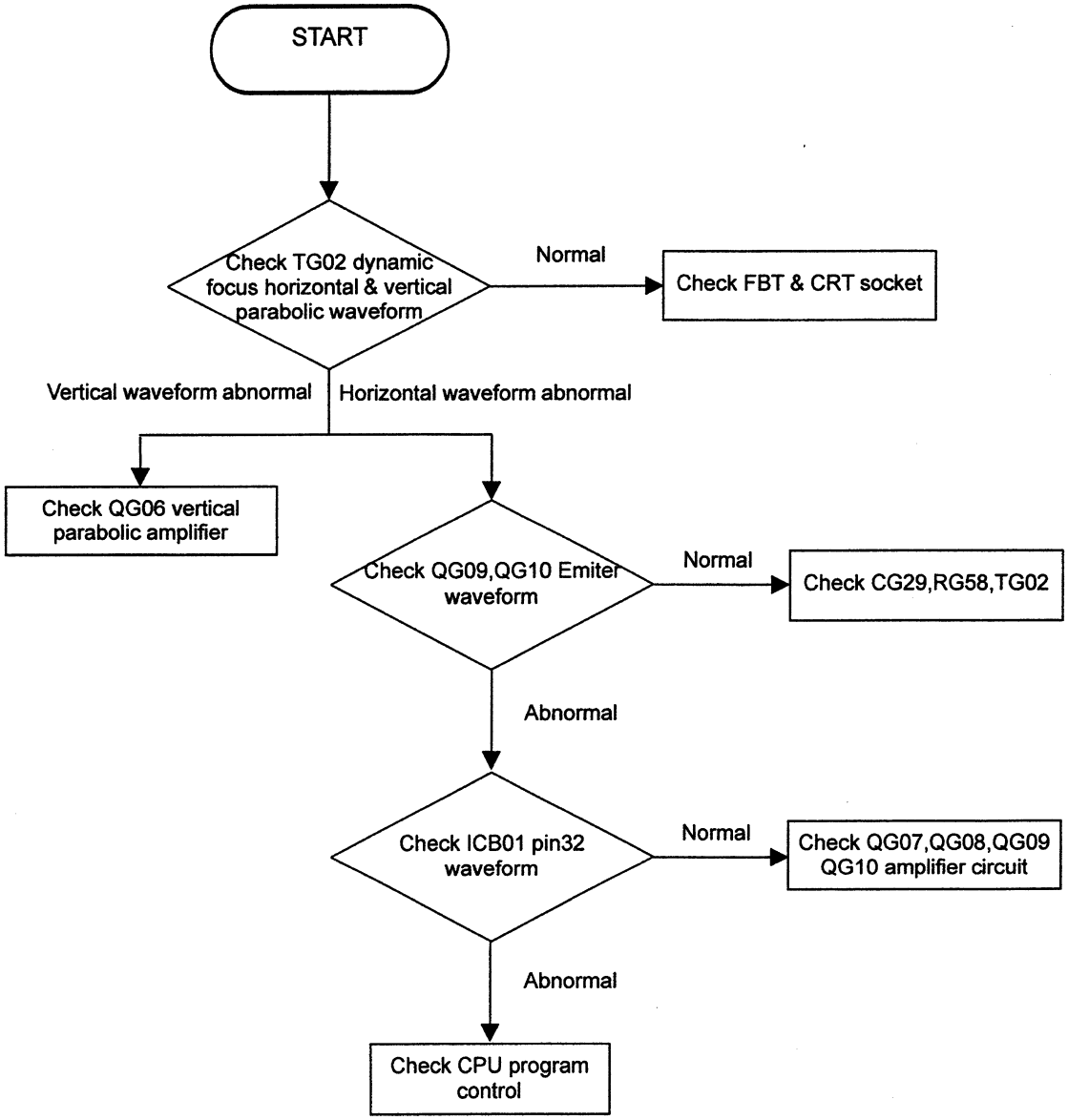
6.18. D-Sub / BNC Selector

D-Sub/BNC selector is consisted of ICU01 and QU01, ICU01 is an electrical switch. The high comes from pin#25 of ICC01 and makes pin#17 of ICU01 to be low level while D-SUB input signal is selected. If pin#17 of ICU01 is turned to high level state, the BNC input signal is selected.

(the schematic diagram refer to **BNC Schematic Section**)

Chapter 7 Trouble Shooting

7.1. Dynamic Focus Failure



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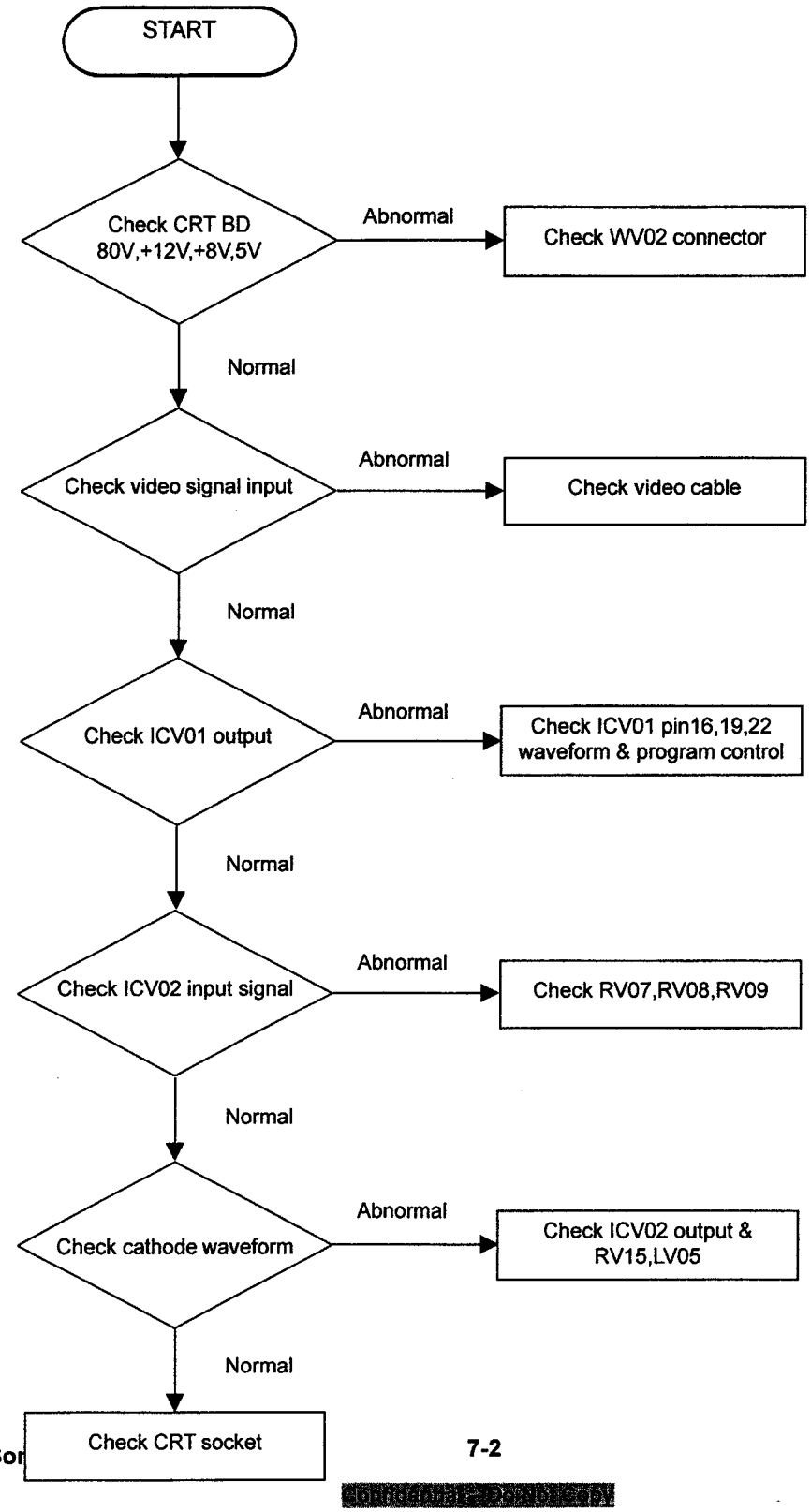
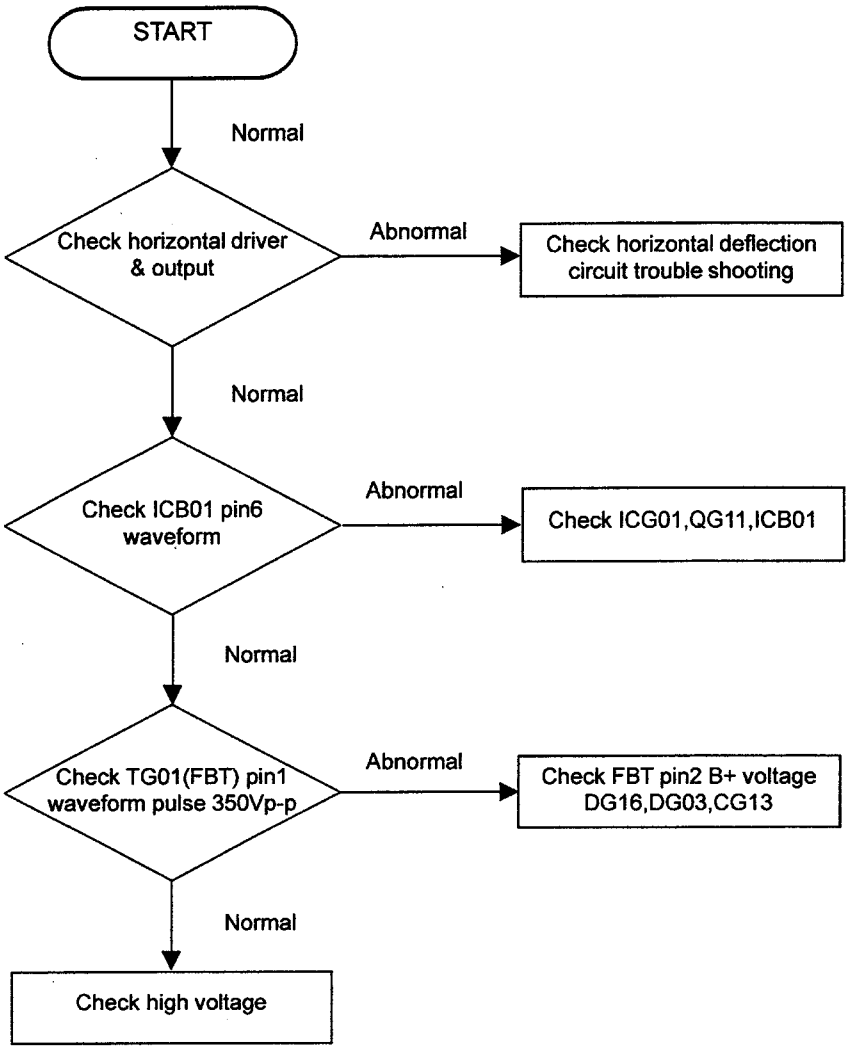
7.2. Video Does Not Appear



7.3. High Voltage Generator Failure



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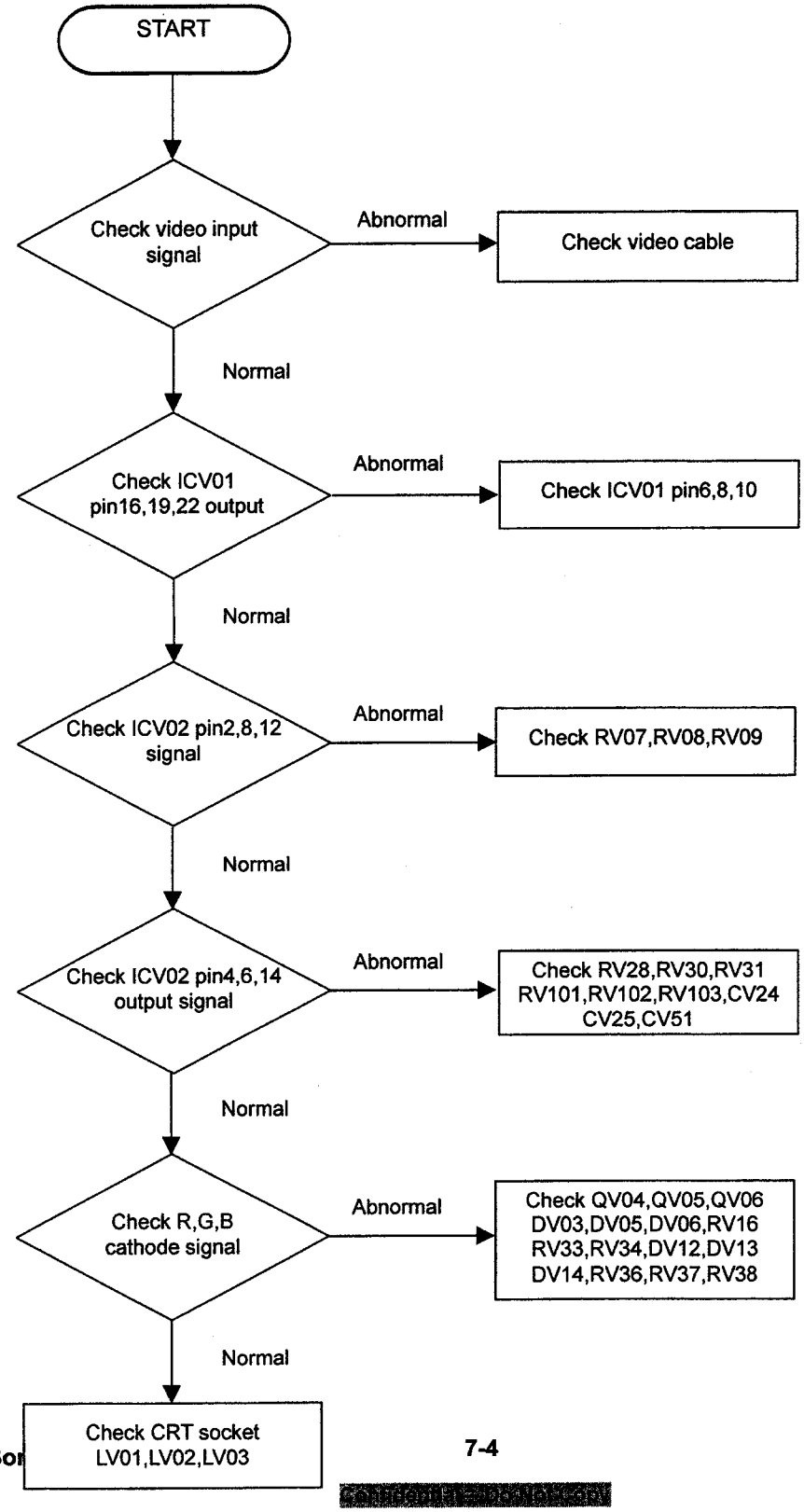
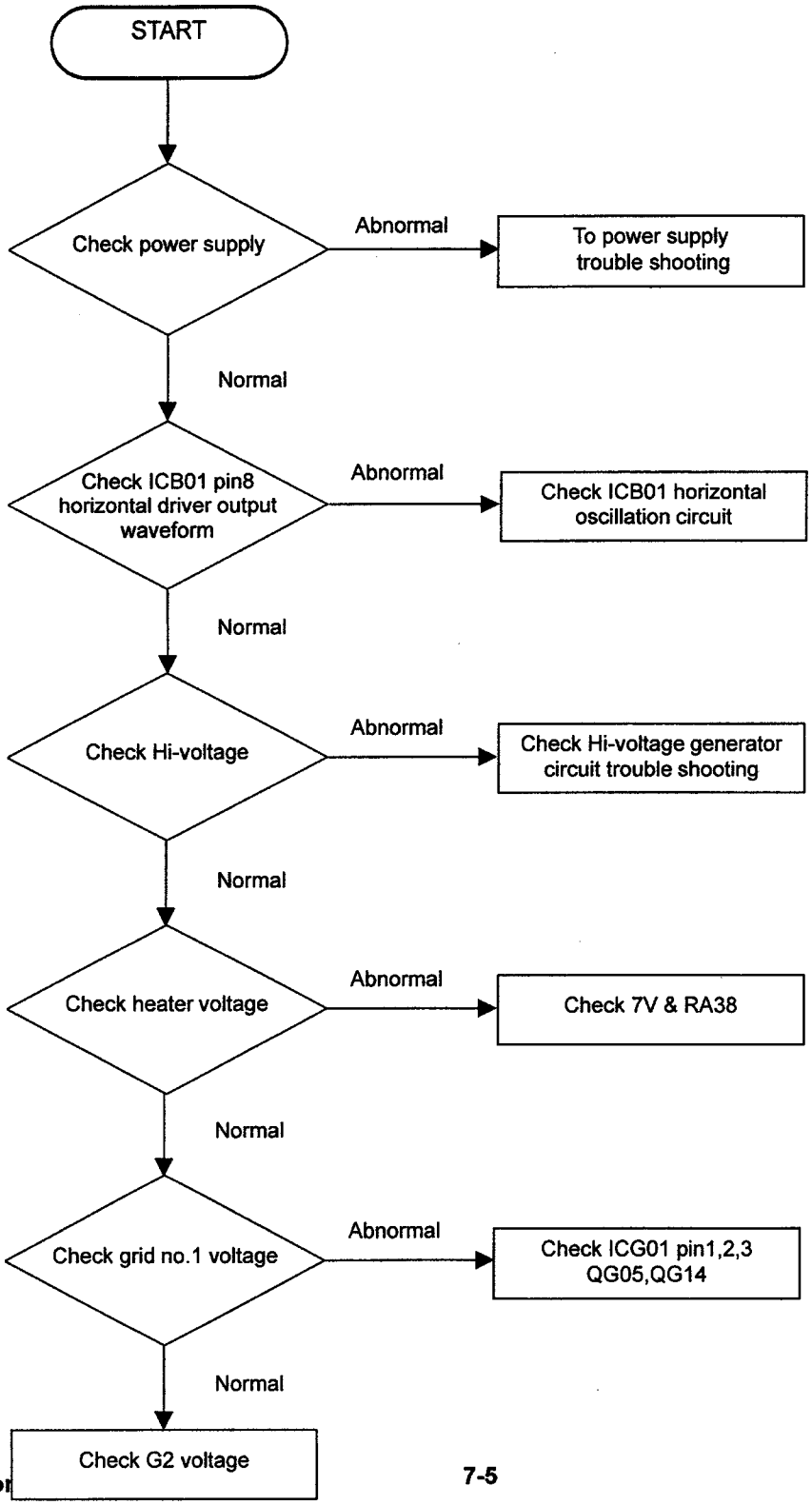
7.4. Video No R, G, B Color



7.5. Raster Does Not Appear



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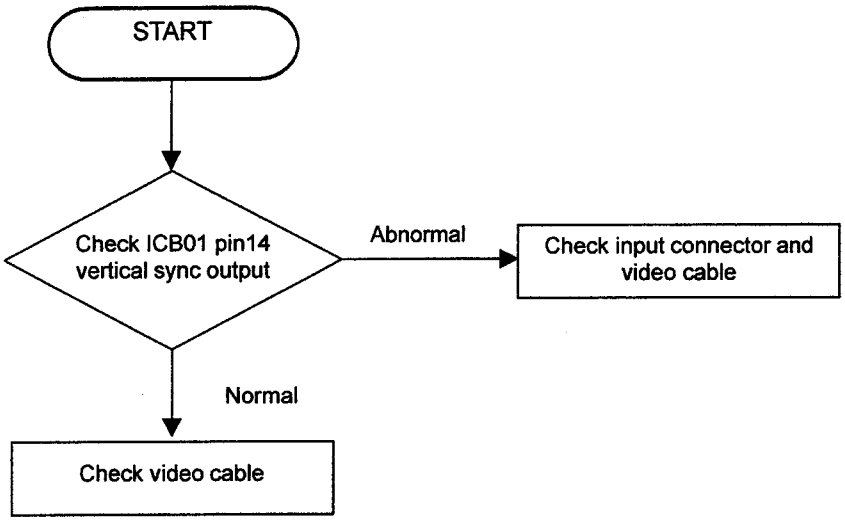
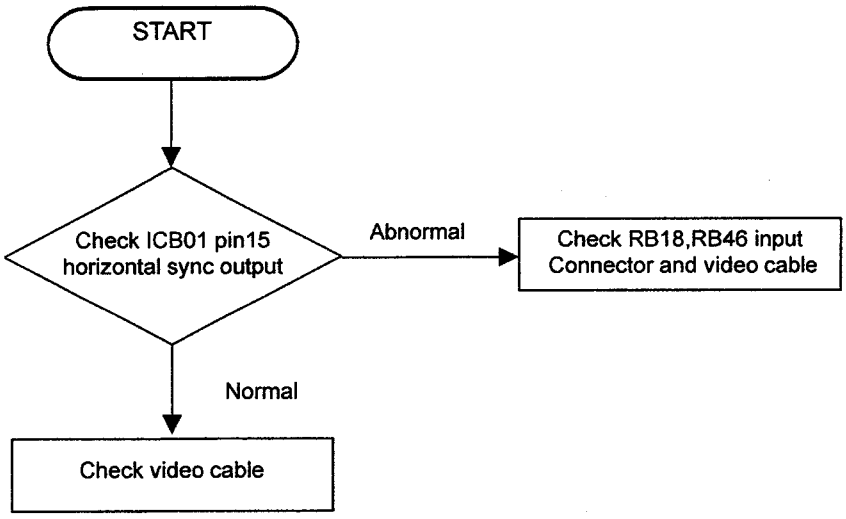
7.6. No Vertical Sync



7.7. No Horizontal Sync



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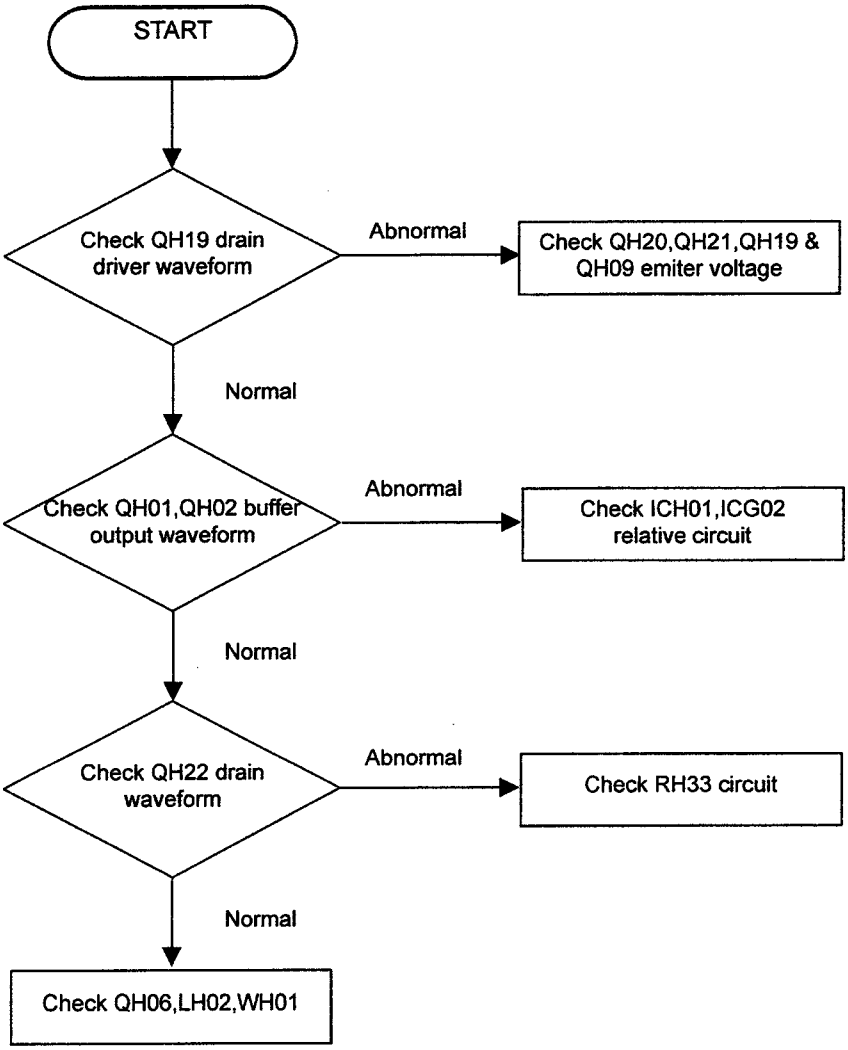
7.8. Horizontal Deflection Failure



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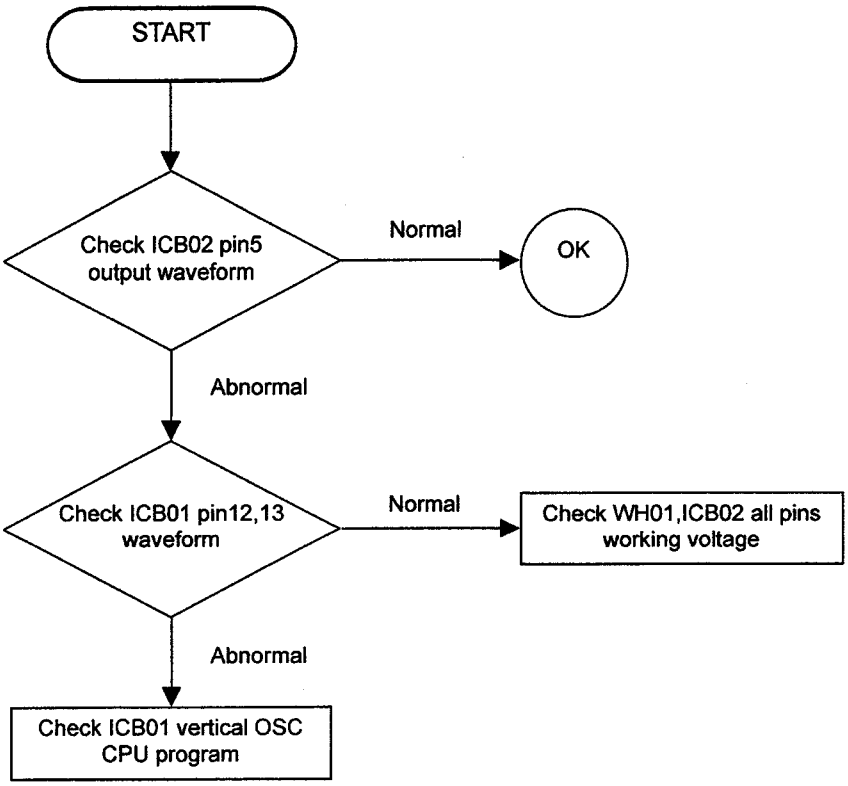
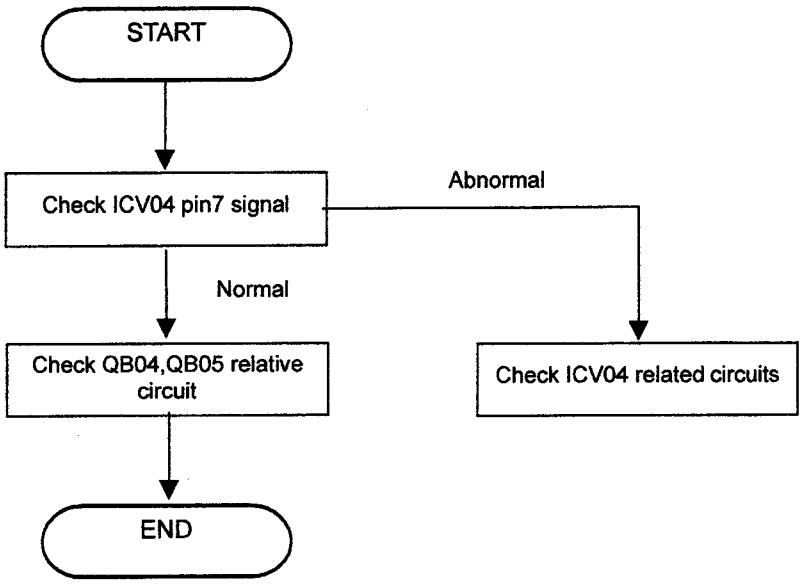
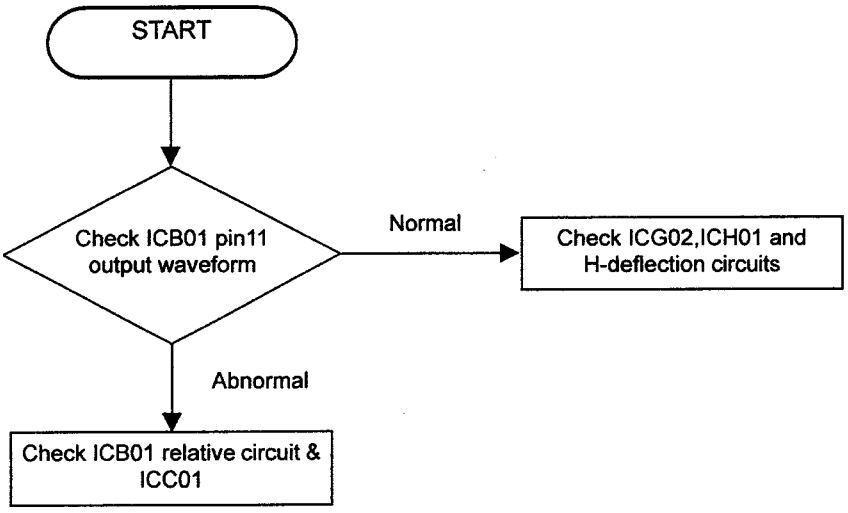
7.9. Single Horizontal Line



7.10. Sync On Green Does Not Work



7.11. Pincushion & Distortion



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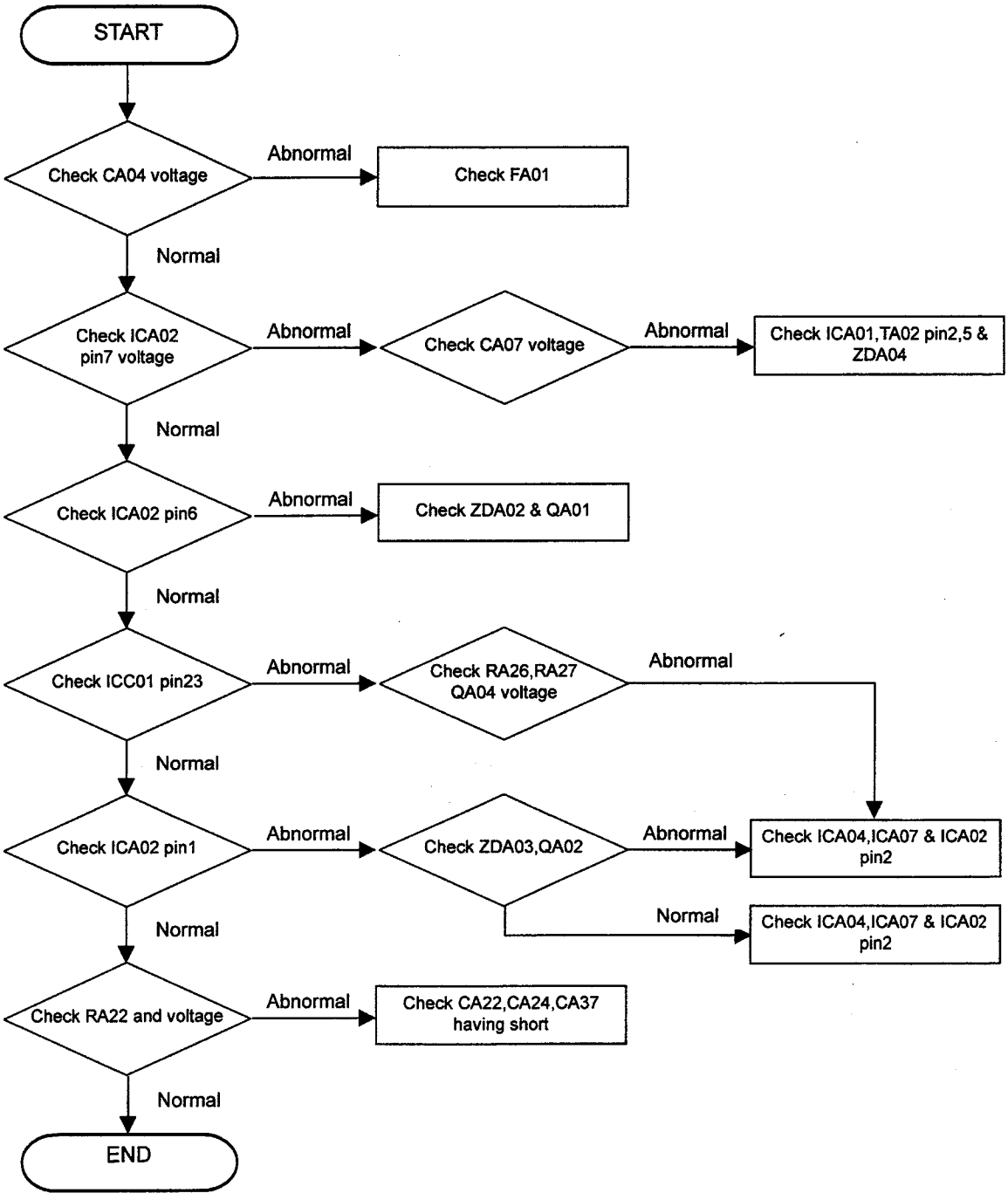
7.12.No Voltage Output



Chapter 8 Alignment Process

8.1. Factory Adjust Procedure

Input timing:1600x1200 (H=106K, V=85Hz)
Pattern: Cross-Hatch

8.1.1. Turn ON the monitor with the **[2]** key keeping pressed for more than 4 seconds to enter the **Preset-Adjust mode**. (There should be an '**P**' at the top-bottom corner of the **On-Screen-Display**).

8.1.2. E2PROM Initial Procedure:

8.1.2-a. Use the OSD controls to enter the " **E2PROM INI** ", and toggle it (push the [2] key)

8.1.2-b. Press button [1] toggle to the e2prom initial operation

8.1.2-c. Press button [2] toggle to exit control

8.1.3. Touch Heat Sink of **DA17** to make Voltage = **80±2V**

8.1.4. Adjust **VRG01** to make **CRT High-Voltage = 27KV**

8.1.5. Preset **"640x480 @75Hz"** H-Size to 80% then adjust VRH02 to make H-Size Full Scan

8.1.6. Adjust **VRH01** under **1280X1024 @75Hz** to make **H-Center** (raster) ±3 mm

8.1.7. Short **WG01** to make **X-Ray** Protection and Restart the monitor in **Preset-Adjust mode**

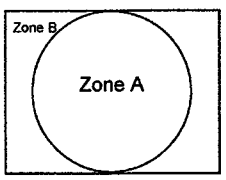
8.1.8. Preset "31K Pattern Cross-Hatch" check CA04 to make voltage 190V Min.

8.1.9. Use the **On-Screen-Display Controls** to adjust the **"H-Position"** ,**"V-Size"**, **"V-Position"**, **"Pincushion"**, **"Trapezoid"**, **"Parallel"**, **"P-Balance"**, **"Rotation"**, **"VLinr-Sym"**, **"VLinr-Center"**, **"Top-Hooking"**, **"Bottom-Hooking"** to meet the **Spec.**:

- H-Position: ± 1.5mm
- V-Size: 297 ± 1.5mm
- V-Position: ± 1.5mm
- Pincushion: ≤ 1.5mm
- Trapezoid: ≤ 1.5mm
- Parallel: ≤ 1.5mm
- P-Balance: ≤ 1.5mm
- Rotation: ≤ 1.5mm

8.1.10. Jitter - Not allowed (Viewed at 45 cm)

8.1.11. Misconvergence -Zone A: 0.25mm; Zone B: 0.35mm



396x297mm

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8.2. Factory Preset Data Adjust Procedure

Input timing: see attached
Pattern: Cross-Hatch

8.2.1. Turn ON the monitor with the **[2]** key keeping pressed for more than 4 seconds to enter the **Preset-Adjust mode**. (There should be an '**P**' at the top-left corner of the **On-Screen-Display**).

8.2.2. For each timing list on attached table (except primary one <1280x1024 H=91K, V=85Hz), use the **On-Screen-Display Controls** to adjust the "**H-Size**", "**H-Position**"(video), "**V-Size**", "**V-Position**", "**Pincushion**", "**Trapezoid**", "**Parallel**", "**P-balance**", to meet the Spec.:

- H-Size: 396± 1.5mm
- H-Position: ± 1.5mm
- V-Size: 297 ± 1.5mm
- V-Position: ± 1.5mm
- Pincushion: ≤ 1.5mm
- Trapezoid: ≤ 1.5mm
- Parallel: ≤ 1.5mm
- P-Balance: ≤ 1.5mm

8.3. Color Adjust Procedure

Input timing: 1280 x 1024 (H=91K,V=85Hz)
Pattern: Center Block/Full White

8.3.1. Turn ON the monitor with the **[2]** key keeping pressed for more than 4 seconds to enter the **Preset-Adjust mode**. (There should be an '**P**' at the top-left corner of the **On-Screen-Display**).

8.3.2. Cut Off Adjust:

8.3.2-a. Use the **OSD Controls** to adjust the "**CONTRAST**" to **min**.(00), "**BRIGHTNESS**" to **max**.(100), "**SUB-BRI**" to 50

8.3.2-b. Enter the "**VIEWMATCH COLOR**" submenu of the **OSD Control**

8.3.2-c. Select the "**VIEWMATCH COLOR**" and toggle it (push the Function key) to **CUTOFF**

8.3.2-d. Preset the **RED,GREEN,BLUE** to 0

8.3.2-e. Adjust the **RED,GREEN,BLUE** to obtain color temperature **X=0.283±0.010,Y=0.297±0.010**

8.3.2-f. Adjust **G2 voltage** to obtain raster **BRIGHTNESS** about ≤ **0.5FL.**

8.3.3. Color Temperature Adjust:

8.3.3-a. Use the **OSD Controls** to adjust the **"BRIGHTNESS"** to **50**, then the **"CONTRAST"** to **100.**

8.3.3-b. Toggle the **"VIEWMATCH COLOR"** to **9300°K**

8.3.3-c. Preset the **RED,GREEN,BLUE**

8.3.3-d. Adjust the **RED,GREEN,BLUE** to obtain color temperature **X=0.283±0.010,Y=0.297±0.010**

8.3.3-e. Repeat **step b,c,d** to adjust color temp. **6500K (X=0.313±0.015,Y=0.329±0.015)** and **5000°K (X=0.346±0.015,Y=0.359±0.015)**

8.3.4. White Luminance Adjust

8.3.4-a. Center Block White Luminance:

- Use the **OSD Controls** to adjust the **"CONTRAST"** to **100** , **"BRIGHTNESS"** to **50, "ABL" to 50**
- Toggle the **"VIEWMATCH COLOR"** to **9300°K**
- Adjust the **"SUB-CONT"** to make the center block 37±3 FL

8.3.4-b. Full While Luminance:

- Use the **OSD Controls** to adjust the **"CONTRAST"** to **100** to, then the **"BRIGHTNESS"** to **50**
- Toggle the **"VIEWMATCH COLOR"** to **9300°K**
- Adjust the **"ABL"** to obtain luminance output 30±2 FL in the full white pattern

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8.3.5. Set present mode timing:

8.3.5-a. Modify timing mode MAC 1024x768 75Hz

E2PROM Address	Data	Remark
47H	05H	Timing ID
59H	46H	Timing Frequency
5AH	2CH	
5BH	88H	
5CH	26H	

8.3.5-b. Modify timing mode MAC 832x624 75Hz

E2PROM Address	Data	Remark
4EH	04H	Timing ID
75H	05H	Timing Frequency
76H	17H	
77H	88H	
78H	30H	

8.3.5-c. Set H-Sync Max Limit

E2PROM Address	Data	Remark
209H	6EH	H-Sync Max Limit
20AH	6EH	
20BH	62H	H-Sync Max Index

Chapter 9 Spare Parts List

1		A-PC-0106-0127	POWER CORD 6ft 220V VDE (-E MODEL)
2		A-PC-0106-0130	PC POWER CORD 6ft 220V VDE (-P MODEL)
3		A-PC-0106-0043	POWER CORD 6ft 110V VDE (-M/-P MODEL)
4		A-VC-0101-0205	S.CABLE 1800mm 15(3R-3R) 3+6C (+PIN9)
5		**C-FP-0301-0763**	**BEZEL P225f 67397 PC+ABS**
6		C-BC-0302-0289	**BACK COVER P225f G7397 PC+ABS**
7		P-FM-0602-0518	POLYLON TOP LEFT (EPO)
8		P-FM-0602-0519	POLYLON TOP RIGHT (EPO)
9		P-FM-0602-0520	POLYLON BOTTOM (EPO)
10		**P-BX-0601-0544**	**CARTON VIEWSONIC P225f(FOR /-E)**
11		**A-CD-P225F**	**CD WIZARD VIEWSONIC P225F**
12		**M-MS-0808-6474**	**SETUP GUIDE P225f**
13		M-MS-0808-6155	SAFETY INSERT CARD
14		B-SB-0221-0206	ASS'Y DISPLAY BD
15		B-SB-0221-0257	ASS'Y POWER FACTOR BD
16		C-BS-0303-0228	BASE(USB) ASS?Y G7397 PC+ABS
17		B-SB-0221-0271	ASS'Y BNC BD NOKIA 130C
18		B-VB-0202-0291	ASS'Y VIDEO BD NOKIA 130C
19		B-MB-0201-0568	ASS'Y MAIN/PWR/CTRL BD P220f-2
20	DA17	B-SB-0221-0246	ASS'Y DIODE BD OPTION BD
21	DG06	E-D-0403-1251	FAST DIODE BYT53G T
22	DG17	E-D-0403-1255	GEN. DIODE BAV21 T
23	DH06	E-D-0403-1230	FAST DIODE FUF5408 T
24	DH08	E-D-0403-1285	DAMPER DIODE FMP-G5FS N-F
25	DP05	B-SB-0221-0258	ASS'Y DIODE OPTION BF FOR DP05
26	ICA01	E-IC-0401-0971	IC TOP221Y TO-220 3PIN
27	ICA02	E-IC-0401-0309	IC UC3842 DIP 8PIN
28	ICA04	E-IC-0401-0952	IC 4N35 DIP 6PIN
29	ICB01	E-IC-0401-1977	IC TDA4856/V2 SDIP 32PIN
30	ICB02	E-IC-0401-0005	IC TDA8172 DIP 7PIN
31	ICC01	E-IC-0401-2283	IC NT68P62 DIP 40PIN(OTP)
32	ICG01	E-IC-0401-0756	IC LM358 DIP-8
33	ICV01	E-IC-0401-2190	IC M52742ASP SDIP 36PIN
34	ICV02	E-IC-0401-2158	IC LM2412T 11PIN
35	ICV05	E-IC-0401-1820	IC D1642 DIP 16PIN V3.0
36	QA01	E-Q-0402-1322	POWER MOS 2SK956 TO-3P (800V 9A)
37	QG03	E-Q-0402-1279	POWER MOS IRF740 TO-220
38	QG05	E-Q-0402-0888	TRANSISTOR BF421 TO-92 T
39	QG06	E-Q-0402-0887	TRANSISTOR BF420 TO-92 T
40	QG08	E-Q-0402-0424	TRANSISTOR BF422 TO-92 T
41	QG09	E-Q-0402-0886	TRANSISTOR 2SD669AC TO-126
42	QG10	E-Q-0402-0119	TRANSISTOR 2SB649AC TO-126
43	QH06	E-Q-0402-1321	TR NPN 2SC5584 1500V 20A TOP-3
44	QH14	E-Q-0402-0940	POWER MOS IRF640 TO-220
45	QH19	E-Q-0402-0938	POWER MOS IRF630 TO-220
46	QH22	E-Q-0402-1276	POWER MOS IRF740 TO-220 3PIN
47	QH28	E-Q-0402-0503	TRANSISTOR BD139 TO-126
48	RLH01	E-RL-0414-0091	RELAY 1POLES 240V/15A/12 Vdc 320?
49	ZDA02	E-D-0403-1579	ZENER 18-2 17.5-18.3 1/2W

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Chapter 10 Critical Parts List

1		E-CRT-0409-0179	CRT 22? M51LRY21X62 MIT. .25mm
2		M-MS-0808-6613	DEGAUSSING 22? 6.8ohm C1 0.7x140Ts
3		M-MS-0808-6614	DEGAUSSING 22? 6.8ohm C2 0.7x140Ts
4	CA01	E-C-0404-1960	P/C X2 0.47uF 275V K B
5	CA02	E-C-0404-1674	D/C Y 4700PF 400V M N-F
6	CA03	E-C-0404-1674	D/C Y 4700PF 400V M N-F
7	CA04	E-C-0404-4160	E/C GEN. 220uF 450V 85? S
8	CA33	E-C-0404-3887	D/C Y 3300PF 250V M N-F
9	CA34	E-C-0404-3887	D/C Y 3300PF 250V M N-F
10	FA01	E-FS-0410-0092	FUSE T-L 250V 4A 5x20 GLASS
11	ICA04	E-IC-0401-0952	IC 4N35 DIP 6PIN
12	LA01	E-L-0407-0474	RING CORE L:250uH 4A
13	LA02	E-L-0407-0474	RING CORE L:250uH 4A
14	QA01	E-Q-0402-1322	POWER MOS 2SK956 TO-3P (800V 9A)
15	RA01	E-R-0405-3168	RES. CF 1.0Mohm 1/2W J A
16	RLA01	E-RL-0414-0032	RELAY 2POLES 250V/5A/12Vdc DT
17	TA02	E-T-0408-0342	X?FMR EEL19 5.5mH AT1099DA
18	TA03	E-T-0408-0388	X?FMR EE4215 105uH (21? & 22?)
19	TA04	E-T-0408-0205	X?FMR SYNC UU 10.5 1.75-1.75mH
20	TG01	E-FBT-0406-0229	F.B.T. 26.5KV 3000PF (CF1853)
21	WA01	M-MS-0808-1859	AC SOCKET 0714C PCB TYPE
22	WA02	M-MS-0808-2136	WAFER 10mm 2P WHITE

Chapter 11 Complete Parts List

11.1. 2021-1210-7235 21" COLOR MONITOR P225f

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	1P11	P-FM-0602-0499	POLYLON TOP RIGHT GS815	1
2	1P12	P-FM-0602-0501	POLYLON BOTTOM GS815	1
3	1P13	M-MS-0808-5754	PE BAG 1000Lx558Wx0.04t EUROPE	1
4	1P15	P-FM-0602-0500	POLYLON TOP LEFT GS815	1
5	1P31	P-BX-0601-0470	CARTON VIEWSONIC GS815	1
6	ASMO01	C-BS-0303-0228	BASE(USB) ASS'Y 170105054010	1
7	ASMO03	B-MB-0201-0486	CHASSIS ASS'Y GS815	1
8	BC01	C-BC-0302-0273	BACK COVER GS815 PC+ABS D-SUB ONLY	1
9	BC04	PL-PD-0714-0028	PLASTIC FOOT / GL-24H	2
10	BC05	M-SCW-0824-0201	SCREW,BBC,M4.0x14L,Zn-Cc	8
11	BC07	M-MS-0808-1898	SPONGE 75Lx75Wx55T	1
12	BC08	M-MS-0808-5941	V.SONIC MYLAR-PLATE	1
13	BZ17	M-MS-0808-5228	V.SONIC LOGO-B (AL. PLATE)	1

11.2. B-SB-0221-0206 DISPLAY BD

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	LEDD01	E-D-0403-0846	LED L-59GYW 5	1
2	PCB5	M-MS-0808-4837	PCB DISPLAY BD V0 118x36x1.6t PT775	1
3	RD01	E-R-0405-2931	RES. CF 33ohm 1/8W J A	1
4	RD02	E-R-0405-2931	RES. CF 33ohm 1/8W J A	1
5	RD03	E-R-0405-6203	RES. MF 4.75Kohm 1/4W F A	1
6	RD04	E-R-0405-5504	RES. CF 18Kohm 1/4W J A	1
7	RD05	E-R-0405-2896	RES. CF 11Kohm 1/8W J A	1
8	RD06	E-R-0405-2945	RES. CF 7.5Kohm 1/8W J A	1
9	SWD01	M-MS-0808-1213	SW TACTILE 6*6mm 4P	1
10	SWD02	M-MS-0808-1213	SW TACTILE 6*6mm 4P	1
11	SWD03	M-MS-0808-1213	SW TACTILE 6*6mm 4P	1
12	SWD04	M-MS-0808-1213	SW TACTILE 6*6mm 4P	1
13	WD01	M-MS-0808-4646	WH XH4P-SCN4P 1007#24 230mm	1

11.3. B-SB-0221-0246 DIODE OPTION BD P95f, P220f, P225f

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	D01	E-D-0403-1230	FAST DIODE FUF5408 T	1
2	D02	E-D-0403-1230	FAST DIODE FUF5408 T	1
3	PCB8	B-SB-0221-0245	PCB OPTION FR4 30x60mmx1.0t D	1
4	R01	E-R-0405-6214	RES. MOF(M) 0.22ohm 2W J A-FK	1
5	R02	E-R-0405-6214	RES. MOF(M) 0.22ohm 2W J A-FK	1

11.4. B-MB-0201-0433 MAIN/PWR/CTRL BD

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	CA01	E-C-0404-1960	P/C X2 0.47uF 275V K B	1
2	CA02	E-C-0404-1674	D/C Y 4700PF 400V M N-F	1
3	CA03	E-C-0404-1674	D/C Y 4700PF 400V M N-F	1
4	CA04	E-C-0404-1910	E/C GEN. 330uF 400V 85' S	1
5	CA06	E-C-0404-1928	C/C DISK 470PF 50V Y5P F-K	1
6	CA07	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
7	CA08	E-C-0404-1787	C/C DISK 1000PF 1KV Y5P F-K	1
8	CA09	E-C-0404-3540	E/C GEN. 33uF 25V 105' F	1
9	CA10	E-C-0404-1913	E/C GEN. 470uF 16V 105' F	1
10	CA10H	M-MS-0808-5904	HEAT S-T 10.0*0.25 20mm 125'	1
11	CA11	E-C-0404-1930	C/C DISK 4700PF 1KV Z5U F-K	1
12	CA12	E-C-0404-1925	C/C DISK 220PF 1KV Y5P F-K	1
13	CA13	E-C-0404-1928	C/C DISK 470PF 50V Y5P F-K	1
14	CA14	E-C-0404-3703	C/C DISK 0.022uF 50V Z5U F-K	1
15	CA15	E-C-0404-1894	E/C GEN. 100uF 25V 105' F	1
16	CA16	E-C-0404-1781	P/C MEF 0.01uF 50V J F-K (T)	1
17	CA17	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
18	CA18	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
19	CA19	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
20	CA20	E-C-0404-2162	E/C GEN. 100uF 100V 105' K	1
21	CA21	E-C-0404-2162	E/C GEN. 100uF 100V 105' K	1
22	CA22	E-C-0404-1897	E/C GEN. 1000uF 25V 105' K	1
23	CA23	E-C-0404-1894	E/C GEN. 100uF 25V 105' F	1
24	CA24	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
25	CA25	E-C-0404-1913	E/C GEN. 470uF 16V 105' F	1
26	CA26	E-C-0404-4043	C/C DISK 100PF 1KV SL F-K	1
27	CA27	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
28	CA29	E-C-0404-1899	E/C GEN. 1.0uF 50V 105'F	1
29	CA30	E-C-0404-1928	C/C DISK 470PF 50V Y5P F-K	1
30	CA32	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
31	CA33	E-C-0404-1674	D/C Y 4700PF 400V M N-F	1
32	CA34	E-C-0404-1674	D/C Y 4700PF 400V M N-F	1
33	CA35	E-C-0404-1787	C/C DISK 1000PF 1KV Y5P F-K	1
34	CA36	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
35	CA37	E-C-0404-1897	E/C GEN. 1000uF 25V 105' K	1
36	CA39	E-C-0404-4043	C/C DISK 100PF 1KV SL F-K	1
37	CA40	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
38	CA41	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
39	CA42	E-C-0404-1917	E/C GEN. 4.7uF 50V 105' F	1
40	CA43	E-C-0404-3501	P/C PPN 0.001uF 630V J F-K	1
41	CA50	E-C-0404-2162	E/C GEN. 100uF 100V 105' K	1
42	CB01	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
43	CB02	E-C-0404-4055	P/C R82 1800PF 100V J B	1
44	CB03	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
45	CB05	E-C-0404-3708	P/C MEF 0.15uF 50V J F-K	1
46	CB06	E-C-0404-3554	P/C R82 0.082uF 100V J B	1
47	CB07	E-C-0404-1953	P/C R82 0.022uF 100V J B	1
48	CB08	E-C-0404-3553	P/C R82 0.0082uF 100V J B	1
49	CB09	E-C-0404-3493	E/C GEN. 0.47uF 50V 105' F	1
50	CB10	E-C-0404-1781	P/C MEF 0.01uF 50V J F-K (T)	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
51	CB11	E-C-0404-2343	P/C R82 3300PF 100V J B	1
52	CB12	E-C-0404-4042	C/C DISK 3300PF 50V Y5P F-K	1
53	CB13	E-C-0404-3702	E/C GEN. 470uF 25V 105' F	1
54	CB14	E-C-0404-4037	E/C GEN. 220uF 35V 105' K	1
55	CB15	E-C-0404-2043	P/C MEF 0.22uF 100V J F-K	1
56	CB16	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
57	CB17	E-C-0404-3702	E/C GEN. 470uF 25V 105' F	1
58	CB19	E-C-0404-1931	C/C DISK 4700PF 50V Y5P F-K	1
59	CB20	E-C-0404-1931	C/C DISK 4700PF 50V Y5P F-K	1
60	CB21	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
61	CC04	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
62	CC05	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
63	CC06	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
64	CC07	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
65	CC08	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
66	CC09	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
67	CC10	E-C-0404-1935	C/C DISK 22PF 50V NPO F-K	1
68	CC11	E-C-0404-1935	C/C DISK 22PF 50V NPO F-K	1
69	CC13	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
70	CC14	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
71	CC15	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
72	CC16	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
73	CC17	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
74	CC20	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
75	CC21	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
76	CC23	E-C-0404-1935	C/C DISK 22PF 50V NPO F-K	1
77	CC25	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
78	CC27	E-C-0404-1790	C/C DISK 68PF 50V NPO F-K	1
79	CC28	E-C-0404-1790	C/C DISK 68PF 50V NPO F-K	1
80	CC39	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
81	CC40	E-C-0404-1932	C/C DISK 100PF 50V NPO F-K	1
82	CC41	E-C-0404-1932	C/C DISK 100PF 50V NPO F-K	1
83	CE03	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
84	CE04	E-C-0404-1920	E/C N-P 1uF 50V 105' F	1
85	CE05	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
86	CE06	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
87	CE10	E-C-0404-1894	E/C GEN. 100uF 25V 105' F	1
88	CE11	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
89	CE12	E-C-0404-1920	E/C N-P 1uF 50V 105' F	1
90	CE13	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
91	CE14	E-C-0404-1920	E/C N-P 1uF 50V 105' F	1
92	CE15	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
93	CE16	E-C-0404-1920	E/C N-P 1uF 50V 105' F	1
94	CE18	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
95	CE20	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
96	CG08	E-C-0404-3520	E/C GEN. 22uF 16V 105' F	1
97	CG09	E-C-0404-1917	E/C GEN. 4.7uF 50V 105' F	1
98	CG10	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
99	CG11	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
100	CG12	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
101	CG13	E-C-0404-1667	P/C PPN 0.0047uF 630V J F-K	1
102	CG15	E-C-0404-3704	C/C DISK 180PF 50V NPO F-K	1
103	CG17	E-C-0404-1899	E/C GEN. 1.0uF 50V 105'F	1
104	CG19	E-C-0404-4036	E/C GEN. 22uF 200V 105' K	1
105	CG20	E-C-0404-3549	P/C MEF 0.01uF 250V J F-K	1
106	CG21	E-C-0404-4053	P/C MEF 0.1uF 400V J F-K	1
107	CG23	E-C-0404-3542	E/C GEN. 4.7uF 200V 105' F	1
108	CG24	E-C-0404-4041	C/C DISK 1000PF 500V Y5P F-K	1
109	CG26	E-C-0404-1922	C/C DISK 100PF 500V Y5P F-K	1
110	CG27	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
111	CG28	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
112	CG29	E-C-0404-2043	P/C MEF 0.22uF 100V J F-K	1
113	CG30	E-C-0404-1888	E/C GEN. 10uF 100V 105' F	1
114	CG31	E-C-0404-1908	E/C GEN. 220uF 100V 105'K	1
115	CG32	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
116	CG33	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
117	CG35	E-C-0404-4052	P/C MEF 0.01uF 400V J F-K (Pitch:7.5mm)	1
118	CG36	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
119	CG39	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
120	CG41	E-C-0404-1786	C/C DISK 0.01uF 50V Z5U F-K	1
121	CG42	E-C-0404-1931	C/C DISK 4700PF 50V Y5P F-K	1
122	CH01	E-C-0404-1932	C/C DISK 100PF 50V NPO F-K	1
123	CH03	E-C-0404-1942	P/C PEN 0.001uF 50V J F-K (T)	1
124	CH04	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
125	CH05	E-C-0404-4038	E/C GEN. 330uF 25V 105' K	1
126	CH06	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
127	CH07	E-C-0404-3547	P/C PEN 0.0047uF 50V J F-K	1
128	CH08	E-C-0404-1899	E/C GEN. 1.0uF 50V 105'F	1
129	CH09	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
130	CH10	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
131	CH11	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
132	CH13	E-C-0404-1809	C/C DISK 0.1uF 50V Y5V F-K	1
133	CH15	E-C-0404-1894	E/C GEN. 100uF 25V 105' F	1
134	CH18	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
135	CH19	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
136	CH20	E-C-0404-3702	E/C GEN. 470uF 25V 105' F	1
137	CH21	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
138	CH22	E-C-0404-4046	P/C PPS 0.0047uF 2KV J N-F	1
139	CH23	E-C-0404-1943	P/C PEN 0.001uF 100V J F-K (T)	1
140	CH25	E-C-0404-1930	C/C DISK 4700PF 1KV Z5U F-K	1
141	CH26	E-C-0404-1937	P/C MEF 1.0uF 50V J F-K	1
142	CH27	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
143	CH30	E-C-0404-1899	E/C GEN. 1.0uF 50V 105'F	1
144	CH33	E-C-0404-1942	P/C PEN 0.001uF 50V J F-K (T)	1
145	CH35	E-C-0404-3700	E/C GEN. 10uF 25V 105' F	1
146	CH36	E-C-0404-1899	E/C GEN. 1.0uF 50V 105'F	1
147	CH37	E-C-0404-4058	P/C MPSA 0.082uF 400V J F-K	1
148	CH38	E-C-0404-1899	E/C GEN. 1.0uF 50V 105'F	1
149	CH39	E-C-0404-4057	P/C MPSA 0.15uF 400V J F-K	1
150	CH40	E-C-0404-3492	E/C GEN. 2.2uF 50V 105' F	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
151	CH41	E-C-0404-4054	P/C MPS 0.39uF 400V J F-K	1
152	CH43	E-C-0404-2245	P/C MPS 1.2uF 400V J F-K	1
153	CH44	E-C-0404-4056	P/C MPSA 0.1uF 400V J F-K	1
154	CH45	E-C-0404-4058	P/C MPSA 0.082uF 400V J F-K	1
155	CH46	E-C-0404-4043	C/C DISK 100PF 1KV SL F-K	1
156	CH62	E-C-0404-1908	E/C GEN. 220uF 100V 105'K	1
157	CH64	E-C-0404-1791	C/C DISK 1000PF 50V Y5P F-K	1
158	CH65	E-C-0404-1932	C/C DISK 100PF 50V NPO F-K	1
159	DA01	E-D-0403-1578	GEN. DIODE 1N5406 T/B	1
160	DA02	E-D-0403-1578	GEN. DIODE 1N5406 T/B	1
161	DA03	E-D-0403-1578	GEN. DIODE 1N5406 T/B	1
162	DA04	E-D-0403-1578	GEN. DIODE 1N5406 T/B	1
163	DA05	E-D-0403-1145	FAST DIODE BA159 T	1
164	DA06	E-D-0403-1296	FAST DIODE 10DF2 T	1
165	DA07	E-D-0403-1296	FAST DIODE 10DF2 T	1
166	DA08	E-D-0403-1645	FAST DIODE 10DF6 T	1
167	DA09	E-D-0403-0531	GEN. DIODE 1N4148 T	1
168	DA10	E-D-0403-0531	GEN. DIODE 1N4148 T	1
169	DA11	E-D-0403-0531	GEN. DIODE 1N4148 T	1
170	DA12	E-D-0403-0531	GEN. DIODE 1N4148 T	1
171	DA13	E-D-0403-0531	GEN. DIODE 1N4148 T	1
172	DA14	E-D-0403-0531	GEN. DIODE 1N4148 T	1
173	DA15	E-D-0403-1310	FAST DIODE FUF5402 T	1
174	DA16	E-D-0403-1250	FAST DIODE FUF5404 T	1
175	DA16H	M-MS-0808-5939	HEAT SINK (30Wx60Lx1.2T)	1
176	DA17	B-SB-0221-0246	ASS'Y OPTION BD P95f,P220f,P225f,AT320DB	1
177	DA18	E-D-0403-1179	GEN. DIODE 1N4002F T	1
178	DA19	E-D-0403-1296	FAST DIODE 10DF2 T	1
179	DA20	E-D-0403-0531	GEN. DIODE 1N4148 T	1
180	DA21	E-D-0403-0531	GEN. DIODE 1N4148 T	1
181	DA23	E-D-0403-1251	FAST DIODE BYT53G T	1
182	DA25	E-D-0403-0531	GEN. DIODE 1N4148 T	1
183	DA35	E-D-0403-1645	FAST DIODE 10DF6 T	1
184	DB01	E-D-0403-0531	GEN. DIODE 1N4148 T	1
185	DB02	E-D-0403-1179	GEN. DIODE 1N4002F T	1
186	DB03	E-D-0403-0531	GEN. DIODE 1N4148 T	1
187	DB10	E-D-0403-0531	GEN. DIODE 1N4148 T	1
188	DC01	E-D-0403-0531	GEN. DIODE 1N4148 T	1
189	DG01	E-D-0403-0531	GEN. DIODE 1N4148 T	1
190	DG02	E-D-0403-0531	GEN. DIODE 1N4148 T	1
191	DG03	E-D-0403-1250	FAST DIODE FUF5404 T	1
192	DG04	E-D-0403-0531	GEN. DIODE 1N4148 T	1
193	DG06	E-D-0403-1251	FAST DIODE BYT53G T	1
194	DG10	E-D-0403-0531	GEN. DIODE 1N4148 T	1
195	DG11	E-D-0403-0531	GEN. DIODE 1N4148 T	1
196	DG12	E-D-0403-0531	GEN. DIODE 1N4148 T	1
197	DG13	E-D-0403-0531	GEN. DIODE 1N4148 T	1
198	DG14	E-D-0403-1296	FAST DIODE 10DF2 T	1
199	DG16	E-D-0403-1250	FAST DIODE FUF5404 T	1
200	DG17	E-D-0403-1255	GEN. DIODE BAV21 T	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
201	DG18	E-D-0403-1255	GEN. DIODE BAV21 T	1
202	DG20	E-D-0403-0531	GEN. DIODE 1N4148 T	1
203	DH01	E-D-0403-0531	GEN. DIODE 1N4148 T	1
204	DH02	E-D-0403-0531	GEN. DIODE 1N4148 T	1
205	DH03	E-D-0403-0531	GEN. DIODE 1N4148 T	1
206	DH04	E-D-0403-1296	FAST DIODE 10DF2 T	1
207	DH05	E-D-0403-0531	GEN. DIODE 1N4148 T	1
208	DH06	E-D-0403-1230	FAST DIODE FUF5408 T	1
209	DH08	E-D-0403-1285	DAMPER DIODE FMP-G5FS N-F	1
210	DH08S	M-SCW-0824-0195	SCREW,PB,M3.0x8L,Zn-Cc	1
211	DH09	E-D-0403-1310	FAST DIODE FUF5402 T	1
212	DH11	E-D-0403-0910	SCHOTTKY DIODE 11DQ06 T	1
213	DH12	E-D-0403-0531	GEN. DIODE 1N4148 T	1
214	DH13	E-D-0403-0531	GEN. DIODE 1N4148 T	1
215	DH14	E-D-0403-0531	GEN. DIODE 1N4148 T	1
216	DH15	E-D-0403-0531	GEN. DIODE 1N4148 T	1
217	FA01	E-FS-0410-0044	FUSE T-L 250V 4A 5*20mm Glass 5ST4	1
218	FA011	M-MS-0808-2834	FUSE CLIP 5*20mm	2
219	FG01	E-L-0407-0555	FERRITE CORE RH 16x17x9	1
220	FG02	E-L-0407-0554	FERRITE CORE 17.5x28.5x9.5	1
221	FG02C	M-WR-0828-0084	WIRE SADDLE/ YJ98	1
222	G01	M-MS-0808-4651	WH 1015#18 320mm BLACK T/C	1
223	G03	M-MS-0808-4846	WH SRA4.3 1015#18 95mm	1
224	G11	M-MS-0808-5918	WH 1015#18 60mm BLACK	1
225	ICA01	E-IC-0401-0971	IC TOP221Y TO-220 3PIN	1
226	ICA02	E-IC-0401-0309	IC UC3842N DIP-8 Pin	1
227	ICA03	E-IC-0401-0906	IC MC7805CT TO-220 3 Pin	1
228	ICA04	E-IC-0401-0952	IC 4N35 DIP 6PIN	1
229	ICA05	E-IC-0401-0350	IC LM7812 TO-220 3 Pin	1
230	ICA05H	M-MS-0808-1804	HEAT SINK (23.5Wx16.5Tx25H)	1
231	ICA05S	M-SCW-0824-0150	SCREW,BTCW,M3.0x6L,Zn-Cc	1
232	ICA06	E-IC-0401-0978	IC MC14013BCP DIP-14	1
233	ICA07	E-IC-0401-1212	IC TL431CLP TO-92 3PIN T	1
234	ICB01	E-IC-0401-1977	IC TDA4856/V2 SDIP 32PIN	1
235	ICB02	E-IC-0401-0005	IC TDA8172 DIP 7PIN	1
236	ICB02G	PL-CL-0710-0009	LOCKING CABLE CLIPS / WC-3L	1
237	ICB02H	M-MS-0808-5932	HEAT SINK FOR (80W*39T*69H)	1
238	ICB02Q	M-SCW-0824-0432	SCREW,BTCW,M3.0x12L,Zn-Cc	1
239	ICB02R	M-MS-0808-3281	SILICON RUBBER /TO1633(30)	1
240	ICB02S	M-SCW-0824-0199	SCREW,BTCW,M3.0x8L,Zz-Cc	1
241	ICB02W	PL-CV-0704-0015	TRANSISTOR COVER / TR-08	1
242	ICC01	E-IC-0401-2188	IC AMTRAN V21-1 V1.0 6862-50032 DIP 40PI	1
243	ICC01S	M-MS-0808-1154	IC SOCKET 2.54mm 40PIN	1
244	ICC02	E-IC-0401-1888	IC 24LC08B/P DIP 8PIN	1
245	ICE01	E-IC-0401-0080	IC LM324N DIP-14	1
246	ICG01	E-IC-0401-0756	IC LM358 DIP-8	1
247	ICG02	E-IC-0401-0756	IC LM358 DIP-8	1
248	ICH01	E-IC-0401-0593	IC TLC555CP DIP 8PIN	1
249	J001	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
250	J002	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
251	J004	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
252	J005	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
253	J007	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
254	J008	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
255	J009	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
256	J010	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
257	J011	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
258	J012	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
259	J015	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
260	J016	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
261	J017	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
262	J018	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
263	J019	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
264	J020	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
265	J022	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
266	J023	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
267	J024	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
268	J025	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
269	J026	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
270	J027	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
271	J028	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
272	J029	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
273	J030	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
274	J032	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
275	J033	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
276	J034	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
277	J035	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
278	J036	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
279	J037	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
280	J038	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
281	J039	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
282	J040	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
283	J041	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
284	J042	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
285	J043	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
286	J044	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
287	J045	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
288	J046	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
289	J048	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
290	J049	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
291	J050	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
292	J051	M-WR-0828-0375	JUMPER WIRE 25*0.6mm	1
293	J052	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
294	J053	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
295	J054	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
296	J056	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
297	J057	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
298	J058	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
299	J059	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
300	J060	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
301	J061	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
302	J062	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
303	J063	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
304	J065	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
305	J067	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
306	J068	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
307	J069	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
308	J071	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
309	J072	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
310	J073	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
311	J074	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
312	J075	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
313	J076	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
314	J077	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
315	J078	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
316	J079	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
317	J080	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
318	J081	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
319	J082	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
320	J083	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
321	J084	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
322	J085	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
323	J086	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
324	J087	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
325	J088	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
326	J089	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
327	J090	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
328	J091	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
329	J092	M-WR-0828-0149	JUMPER WIRE 22.5x0.6mm	1
330	J093	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
331	J094	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
332	J095	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
333	J096	M-WR-0828-0151	JUMPER WIRE 7.5*0.6mm	1
334	J097	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
335	J098	M-WR-0828-0090	JUMPER WIRE 20*0.6mm	1
336	J099	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
337	J100	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
338	J101	M-WR-0828-0147	JUMPER WIRE 17.5*0.6mm	1
339	J102	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
340	J103	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
341	J105	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
342	J106	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
343	J107	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
344	J109	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
345	J110	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
346	J112	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
347	J113	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
348	J115	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
349	JPC01	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
350	LA01	E-L-0407-0474	RING CORE L:250uH 4A	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
351	LA02	E-L-0407-0474	RING CORE L:250uH 4A	1
352	LA03	E-L-0407-0547	FERRITE CORE RH 3.5x6x1.0(W)x2	1
353	LA04	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
354	LA05	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
355	LA06	E-L-0407-0547	FERRITE CORE RH 3.5x6x1.0(W)x2	1
356	LA07	E-L-0407-0547	FERRITE CORE RH 3.5x6x1.0(W)x2	1
357	LA10	E-L-0407-0547	FERRITE CORE RH 3.5x6x1.0(W)x2	1
358	LC01	E-L-0407-1084	PEAKING COIL 2.2uH 1/4W K A-T	1
359	LG01	E-L-0407-1086	BEAD CORE RH 3.5x4.7x1.0mm	1
360	LH01	E-T-0408-0387	X'FMR EI30 150uH 3A	1
361	LH02	E-T-0408-0389	X'FMR H-CEN EI25 7.0mH 0.45A	1
362	LH05	E-L-0407-1275	LINEARITY COIL 8.5uH -4A	1
363	LH06	E-L-0407-1274	DRUM CORE L:64uH 10x16	1
364	MB02	M-WR-0828-0085	WIRE SADDLE/ YJ-203S	1
365	MB03	M-MS-0808-5927	CHASSIS BRACKET LEFT	1
366	MB04	M-MS-0808-5928	CHASSIS BRACKET RIGHT	1
367	MB05	M-MS-0808-5931	CHASSIS BRACKET FRONT GS815	1
368	MB06	M-MS-0808-4667	CHASSIS BRACKET REAR/AT897D	1
369	MB10	M-SCW-0824-0150	SCREW,BTCW,M3.0x6L,Zn-Cc	12
370	MB11	M-SCW-0824-0151	SCREW,BTCW,M3.0x10L,Zn-Cc	9
371	MB12	M-SCW-0824-0198	SCREW,PBATW,M4.0x8L,Zz-Cc	1
372	MB13	M-MS-0808-5933	HEAT SINK FOR EMI GS815	1
373	MB14	M-MS-0808-5929	CRT SUPPORT-L	1
374	MB15	M-MS-0808-5930	CRT SUPPORT-R	1
375	MB16	M-SCW-0824-0199	SCREW,BTCW,M3.0x8L,Zz-Cc	2
376	MB17	M-MS-0808-5923	WIRE CLIP TA-8	2
377	PCB1	B-MB-0201-0451	PCB MAIN/PWR/CTRL BD K1 337x271 GS815	1
378	PRC01	E-R-0405-5532	ARRAY RES. A(X) 10Kohm 1/8W J 8P	1
379	QA01	E-Q-0402-1322	POWER MOS 2SK956 TO-3P (800V 9A)	1
380	QA01H	M-MS-0808-1893	HEAT SINK 60Wx15Tx80H-40H	1
381	QA01R	M-MS-0808-1182	SILICON RUBBER/TO-3P3	1
382	QA01S	M-SCW-0824-0148	SCREW,PB,M3.0x10L,Zn-Cc	1
383	QA02	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
384	QA04	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
385	QA07	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
386	QA09	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
387	QA10	E-Q-0402-0567	TRANSISTOR 2SA733P TO-92 T	1
388	QA11	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
389	QB03	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
390	QB04	E-Q-0402-0567	TRANSISTOR 2SA733P TO-92 T	1
391	QB05	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
392	QC10	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
393	QC11	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
394	QC14	E-Q-0402-0567	TRANSISTOR 2SA733P TO-92 T	1
395	QE01	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
396	QE02	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
397	QE05	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
398	QE06	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
399	QE07	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
400	QE08	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
401	QE09	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
402	QE10	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
403	QG01	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
404	QG03	E-Q-0402-1279	POWER MOS IRF740 TO-220 3PIN	1
405	QG03H	M-MS-0808-5936	HEAT SINK (60.1W*45H*15T) GS815	1
406	QG03R	M-MS-0808-3281	SILICON RUBBER /TO1633(30)	1
407	QG03S	M-SCW-0824-0149	SCREW,PB,M3.0x12L,Zn-Cc	1
408	QG03W	PL-CV-0704-0015	TRANSISTOR COVER / TR-08	1
409	QG04	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
410	QG05	E-Q-0402-0888	TRANSISTOR BF421 TO-92 T	1
411	QG06	E-Q-0402-0887	TRANSISTOR BF420 TO-92 T	1
412	QG07	E-Q-0402-0567	TRANSISTOR 2SA733P TO-92 T	1
413	QG08	E-Q-0402-0424	TRANSISTOR BF422 TO-92 T	1
414	QG09	E-Q-0402-0886	TRANSISTOR 2SD669AC TO-126	1
415	QG09H	M-MS-0808-4856	HEAT SINK (15W*11T*40.0H)	1
416	QG09S	M-SCW-0824-0147	SCREW,PB,M3.0x6L,Zn-Cc	1
417	QG10	E-Q-0402-0119	TRANSISTOR 2SB649AC TO-126	1
418	QG10H	M-MS-0808-4856	HEAT SINK (15W*11T*40.0H)	1
419	QG10S	M-SCW-0824-0147	SCREW,PB,M3.0x6L,Zn-Cc	1
420	QG11	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
421	QG12	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
422	QG13	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
423	QG14	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
424	QG15	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
425	QG16	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
426	QG17	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
427	QG18	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
428	QG19	E-Q-0402-0887	TRANSISTOR BF420 TO-92 T	1
429	QG20	E-Q-0402-0888	TRANSISTOR BF421 TO-92 T	1
430	QH01	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
431	QH02	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
432	QH05	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
433	QH06	E-Q-0402-1321	TR NPN 2SC5584 1500V 20A TOP-3L	1
434	QH06H1	M-MS-0808-5934	HEAT SINK (84Wx100Hx15T) GS815	1
435	QH06H2	M-MS-0808-5935	HEAT SINK (84W*63.2H*15T) GS815	1
436	QH06R	M-MS-0808-1797	SILICON RUBBER / TO-3025	1
437	QH06S1	M-SCW-0824-0195	SCREW,PB,M3.0x8L,Zn-Cc	1
438	QH06S2	M-SCW-0824-0479	TAP. SCREW-TP #3.0x8.0L, Zn-Cc	5
439	QH07	E-Q-0402-0503	TRANSISTOR BD139 TO-126	1
440	QH07N	M-MS-0808-1208	NUT M3.0x0.5,Zn-Cc	1
441	QH07S	M-SCW-0824-0195	SCREW,PB,M3.0x8L,Zn-Cc	1
442	QH08	E-Q-0402-0991	TRANSISTOR BD140 TO-126	1
443	QH09	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
444	QH10	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
445	QH12	E-Q-0402-0940	POWER MOS IRF640 TO-220	1
446	QH13	E-Q-0402-0940	POWER MOS IRF640 TO-220	1
447	QH13H	M-MS-0808-4856	HEAT SINK (15W*11T*40.0H)	1
448	QH13R	M-MS-0808-1184	SILICON RUBBER/TO-2203	1
449	QH13S	M-SCW-0824-0147	SCREW,PB,M3.0x6L,Zn-Cc	1
450	QH13W	M-MS-0808-1186	TRANSISTOR WASHER/602S	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
451	QH14	E-Q-0402-0940	POWER MOS IRF640 TO-220	1
452	QH14H	M-MS-0808-4856	HEAT SINK (15W*11T*40.0H)	1
453	QH14R	M-MS-0808-1184	SILICON RUBBER/TO-2203	1
454	QH14S	M-SCW-0824-0147	SCREW,PB,M3.0x6L,Zn-Cc	1
455	QH14W	M-MS-0808-1186	TRANSISTOR WASHER/602S	1
456	QH15	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
457	QH16	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
458	QH17	E-Q-0402-1257	TRANSISTOR 2SA673AC TO-92 T	1
459	QH18	E-Q-0402-0567	TRANSISTOR 2SA733P TO-92 T	1
460	QH19	E-Q-0402-0938	POWER MOS IRF630 TO-220	1
461	QH20	E-Q-0402-0567	TRANSISTOR 2SA733P TO-92 T	1
462	QH21	E-Q-0402-0421	TRANSISTOR 2SC1213AC TO-92 T	1
463	QH22	E-Q-0402-1279	POWER MOS IRF740 TO-220 3PIN	1
464	QH22H	M-MS-0808-4857	HEAT SINK (23.5Wx16.5Tx50H)	1
465	QH22R	M-MS-0808-1184	SILICON RUBBER/TO-2203	1
466	QH22S	M-SCW-0824-0147	SCREW,PB,M3.0x6L,Zn-Cc	1
467	QH22W	M-MS-0808-1186	TRANSISTOR WASHER/602S	1
468	QH24	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
469	QH25	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
470	QH26	E-Q-0402-0669	TRANSISTOR 2SC945P TO-92 T	1
471	QH28	E-Q-0402-0503	TRANSISTOR BD139 TO-126	1
472	QH28H	M-MS-0808-1198	HEAT SINK (12Wx5Tx22H)	1
473	QH28S	M-SCW-0824-0147	SCREW,PB,M3.0x6L,Zn-Cc	1
474	RA01	E-R-0405-3168	RES. CF 1.0Mohm 1/2W J A	1
475	RA03	E-R-0405-5513	RES. CF 47Kohm 1W J A-FK	1
476	RA04	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
477	RA06	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
478	RA07	E-R-0405-5515	RES. CF 4.7ohm 1/4W J A	1
479	RA08	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
480	RA09	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
481	RA10	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
482	RA11	E-R-0405-3280	RES. MOF 0.12ohm 2W J A-FK	1
483	RA12	E-R-0405-2933	RES. CF 27Kohm 1/8W J A	1
484	RA13	E-R-0405-3522	RES. CF 12Kohm 1/4W J A	1
485	RA14	E-R-0405-4235	RES. CF 470ohm 1/8W J A	1
486	RA15	E-R-0405-4251	RES. CF 100Kohm 1/8W J A	1
487	RA16	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
488	RA17	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
489	RA18	E-R-0405-3250	RES. CF 10ohm 1/4W J A	1
490	RA19	E-R-0405-3250	RES. CF 10ohm 1/4W J A	1
491	RA20	E-R-0405-5507	RES. CF 2.2Kohm 1/4W J A	1
492	RA21	E-R-0405-5511	RES. CF 33ohm 1/2W J A	1
493	RA22	E-R-0405-6208	RES. MOF 120Kohm 1W J A-FK	1
494	RA23	E-R-0405-3289	RES. MOF 62Kohm 1W F A-FK	1
495	RA24	E-R-0405-5787	RES. MF 2.00Kohm 1/4W F A	1
496	RA25	E-R-0405-6193	RES. CF 220Kohm 1/8W J A	1
497	RA26	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
498	RA27	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
499	RA28	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
500	RA29	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
501	RA31	E-R-0405-2349	RES. CF 1.0Kohm 1/2W J A	1
502	RA32	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
503	RA33	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
504	RA34	E-R-0405-3250	RES. CF 10ohm 1/4W J A	1
505	RA35	E-R-0405-6212	RES. MOF 680ohm 2W J A-FK	1
506	RA36	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
507	RA38	E-R-0405-6206	RES. MOF 0.47ohm 1W J A-FK	1
508	RA40	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
509	RA41	E-R-0405-5528	RES. MOF 68Kohm 2W J A-FK	1
510	RA42	E-R-0405-5528	RES. MOF 68Kohm 2W J A-FK	1
511	RA43	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
512	RA44	E-R-0405-3312	RES. CF 1.0ohm 1/8W J A	1
513	RA45	E-R-0405-0944	RES. CF 200ohm 1/8W J A	1
514	RA46	E-R-0405-5517	RES. CF 51ohm 1/2W J A	1
515	RA47	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
516	RA48	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
517	RA49	E-R-0405-4258	RES. CF 2.2Kohm 1/8W J A	1
518	RA50	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
519	RA51	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
520	RA52	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
521	RA68	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
522	RB01	E-R-0405-5416	RES. CF 4.7Kohm 1/4W J A	1
523	RB02	E-R-0405-2908	RES. CF 18Kohm 1/8W J A	1
524	RB03	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
525	RB04	E-R-0405-2943	RES. CF 6.8Kohm 1/8W J A	1
526	RB05	E-R-0405-4241	RES. CF 51Kohm 1/8W J A	1
527	RB06	E-R-0405-5508	RES. CF 2.4Kohm 1/4W J A	1
528	RB07	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
529	RB08	E-R-0405-3522	RES. CF 12Kohm 1/4W J A	1
530	RB10	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
531	RB11	E-R-0405-5515	RES. CF 4.7ohm 1/4W J A	1
532	RB12	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
533	RB14	E-R-0405-2899	RES. CF 12Kohm 1/8W J A	1
534	RB15	E-R-0405-4260	RES. CF 3.3Kohm 1/8W J A	1
535	RB16	E-R-0405-2899	RES. CF 12Kohm 1/8W J A	1
536	RB17	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
537	RB18	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
538	RB19	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
539	RB20	E-R-0405-5499	RES. CF 1.5Kohm 1/4W J A	1
540	RB21	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
541	RB22	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
542	RB23	E-R-0405-2917	RES. CF 22Kohm 1/8W J A	1
543	RB24	E-R-0405-4260	RES. CF 3.3Kohm 1/8W J A	1
544	RB25	E-R-0405-6204	RES. MF 562ohm 1/8W F A	1
545	RB26	E-R-0405-5523	RES. MF 2.74Kohm 1/8W F A	1
546	RB27	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
547	RB28	E-R-0405-3274	RES. MF 12.1Kohm 1/4W F A	1
548	RB29	E-R-0405-5524	RES. MF 6.19Kohm 1/4W F A	1
549	RB30	E-R-0405-3282	RES. MOF 1ohm 2W J A-FK	1
550	RB31	E-R-0405-3282	RES. MOF 1ohm 2W J A-FK	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
551	RB32	E-R-0405-3255	RES. CF 1.5ohm 1/4W J A	1
552	RB33	E-R-0405-3274	RES. MF 12.1Kohm 1/4W F A	1
553	RB34	E-R-0405-3278	RES. MF 6.19Kohm 1/8W F A	1
554	RB35	E-R-0405-3282	RES. MOF 1ohm 2W J A-FK	1
555	RB36	E-R-0405-6200	RES. CF 680ohm 1/2W J A	1
556	RB43	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
557	RB44	M-WR-0828-0092	JUMPER WIRE 5.0*0.6mm	1
558	RB45	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
559	RB46	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
560	RB47	E-R-0405-3250	RES. CF 10ohm 1/4W J A	1
561	RB51	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
562	RB52	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
563	RB54	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
564	RB62	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
565	RB63	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
566	RC01	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
567	RC02	E-R-0405-5507	RES. CF 2.2Kohm 1/4W J A	1
568	RC04	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
569	RC05	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
570	RC07	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
571	RC10	E-R-0405-2893	RES. CF 10Mohm 1/8W J A	1
572	RC11	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
573	RC12	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
574	RC13	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
575	RC14	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
576	RC15	E-R-0405-2913	RES. CF 20Kohm 1/8W J A	1
577	RC16	E-R-0405-5396	RES. CF 15Kohm 1/4W J A	1
578	RC17	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
579	RC18	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
580	RC20	E-R-0405-4258	RES. CF 2.2Kohm 1/8W J A	1
581	RC22	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
582	RC23	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
583	RC25	E-R-0405-5507	RES. CF 2.2Kohm 1/4W J A	1
584	RC27	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
585	RC31	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
586	RC32	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
587	RC33	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
588	RC34	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
589	RC35	E-R-0405-4258	RES. CF 2.2Kohm 1/8W J A	1
590	RC36	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
591	RC37	E-R-0405-4258	RES. CF 2.2Kohm 1/8W J A	1
592	RC38	E-R-0405-5507	RES. CF 2.2Kohm 1/4W J A	1
593	RC39	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
594	RC40	E-R-0405-4258	RES. CF 2.2Kohm 1/8W J A	1
595	RC41	E-R-0405-2913	RES. CF 20Kohm 1/8W J A	1
596	RC42	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
597	RC43	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
598	RC44	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
599	RC45	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
600	RC49	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
601	RC50	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
602	RC52	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
603	RC59	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
604	RC61	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
605	RC63	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
606	RC65	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
607	RC67	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
608	RC73	E-R-0405-6217	RES. CF 10Kohm 1/2W J A	1
609	RC74	E-R-0405-5416	RES. CF 4.7Kohm 1/4W J A	1
610	RC75	E-R-0405-5416	RES. CF 4.7Kohm 1/4W J A	1
611	RC76	E-R-0405-5416	RES. CF 4.7Kohm 1/4W J A	1
612	RC77	E-R-0405-4235	RES. CF 470ohm 1/8W J A	1
613	RC78	E-R-0405-4235	RES. CF 470ohm 1/8W J A	1
614	RC79	E-R-0405-4235	RES. CF 470ohm 1/8W J A	1
615	RC80	E-R-0405-3174	RES. CF 68ohm 1/4W J A	1
616	RC81	E-R-0405-3174	RES. CF 68ohm 1/4W J A	1
617	RC82	E-R-0405-4248	RES. CF 100ohm 1/8W J A	1
618	RE01	E-R-0405-2929	RES. CF 33Kohm 1/8W J A	1
619	RE02	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
620	RE07	E-R-0405-3660	RES. CF 180ohm 1/2W J A	1
621	RE08	E-R-0405-3661	RES. CF 51ohm 1/4W J A	1
622	RE10	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
623	RE13	E-R-0405-5407	RES. CF 33Kohm 1/4W J A	1
624	RE14	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
625	RE15	E-R-0405-3662	RES. CF 75ohm 1/2W J A	1
626	RE16	E-R-0405-3661	RES. CF 51ohm 1/4W J A	1
627	RE17	E-R-0405-5407	RES. CF 33Kohm 1/4W J A	1
628	RE18	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
629	RE19	E-R-0405-3660	RES. CF 180ohm 1/2W J A	1
630	RE20	E-R-0405-3661	RES. CF 51ohm 1/4W J A	1
631	RE21	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
632	RE22	E-R-0405-5502	RES. CF 1.6Kohm 1/4W J A	1
633	RE24	E-R-0405-3661	RES. CF 51ohm 1/4W J A	1
634	RE25	E-R-0405-3662	RES. CF 75ohm 1/2W J A	1
635	RE26	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
636	RE29	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
637	RE30	E-R-0405-5407	RES. CF 33Kohm 1/4W J A	1
638	RG01	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
639	RG02	E-R-0405-5497	RES. CF 1.0ohm 1/4W J A	1
640	RG03	E-R-0405-4260	RES. CF 3.3Kohm 1/8W J A	1
641	RG04	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
642	RG05	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
643	RG08	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
644	RG09	E-R-0405-2933	RES. CF 27Kohm 1/8W J A	1
645	RG10	E-R-0405-4261	RES. CF 5.6Kohm 1/8W J A	1
646	RG11	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
647	RG12	E-R-0405-5514	RES. CF 4.7Mohm 1/8W J A	1
648	RG13	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
649	RG14	E-R-0405-2943	RES. CF 6.8Kohm 1/8W J A	1
650	RG15	E-R-0405-2925	RES. CF 30Kohm 1/8W J A	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
651	RG16	E-R-0405-4251	RES. CF 100Kohm 1/8W J A	1
652	RG17	E-R-0405-2932	RES. CF 360Kohm 1/8W J A	1
653	RG18	E-R-0405-3267	RES. CF 47ohm 1/4W J A	1
654	RG20	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
655	RG21	E-R-0405-6192	RES. CF 220ohm 1/4W J A	1
656	RG22	E-R-0405-5436	RES. MOF 2.2ohm 2W J A-FK	1
657	RG23	E-R-0405-3267	RES. CF 47ohm 1/4W J A	1
658	RG24	E-R-0405-2917	RES. CF 22Kohm 1/8W J A	1
659	RG26	E-R-0405-2917	RES. CF 22Kohm 1/8W J A	1
660	RG27	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
661	RG28	E-R-0405-3446	RES. CF 13Kohm 1/8W J A	1
662	RG30	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
663	RG31	E-R-0405-3267	RES. CF 47ohm 1/4W J A	1
664	RG32	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
665	RG33	E-R-0405-5406	RES. CF 3.3Kohm 1/4W J A	1
666	RG34	E-R-0405-4272	RES. CF 100Kohm 1/4W J A	1
667	RG35	E-R-0405-6209	RES. MOF 120Kohm 2W J A-FK	1
668	RG37	E-R-0405-4261	RES. CF 5.6Kohm 1/8W J A	1
669	RG38	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
670	RG39	E-R-0405-2922	RES. CF 2.7Kohm 1/8W J A	1
671	RG40	E-R-0405-3252	RES. CF 110Kohm 1/8W J A	1
672	RG41	E-R-0405-4254	RES. CF 120Kohm 1/8W J A	1
673	RG42	E-R-0405-2349	RES. CF 1.0Kohm 1/2W J A	1
674	RG43	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
675	RG44	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
676	RG45	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
677	RG46	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
678	RG47	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
679	RG49	E-R-0405-6202	RES. CF 910Kohm 1/4W J A	1
680	RG50	E-R-0405-6197	RES. CF 4.3Kohm 1/8W J A	1
681	RG51	E-R-0405-6191	RES. CF 200Kohm 1/2W J A	1
682	RG52	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
683	RG53	E-R-0405-2907	RES. CF 1.8Kohm 1/8W J A	1
684	RG54	E-R-0405-4265	RES. CF 47ohm 1/8W J A	1
685	RG55	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
686	RG56	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
687	RG57	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
688	RG58	E-R-0405-6194	RES. CF 24ohm 1/4W J A	1
689	RG59	E-R-0405-5401	RES. CF 20Kohm 1/4W J A	1
690	RG60	E-R-0405-6201	RES. CF 820ohm 1/8W J A	1
691	RG61	E-R-0405-2949	RES. CF 8.2Kohm 1/8W J A	1
692	RG62	E-R-0405-6207	RES. MOF 10ohm 1W J A-FK	1
693	RG63	E-R-0405-5519	RES. CF 680Kohm 1/8W J A	1
694	RG65	E-R-0405-6199	RES. CF 510ohm 1/8W J A	1
695	RG66	E-R-0405-4251	RES. CF 100Kohm 1/8W J A	1
696	RG67	E-R-0405-4261	RES. CF 5.6Kohm 1/8W J A	1
697	RG68	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
698	RG69	E-R-0405-6195	RES. CF 270ohm 1/8W J A	1
699	RG70	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
700	RG72	E-R-0405-2922	RES. CF 2.7Kohm 1/8W J A	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
701	RG73	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
702	RG74	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
703	RG75	E-R-0405-6199	RES. CF 510ohm 1/8W J A	1
704	RH01	E-R-0405-2899	RES. CF 12Kohm 1/8W J A	1
705	RH02	E-R-0405-4269	RES. CF 10Kohm 1/4W J A	1
706	RH03	E-R-0405-5432	RES. MF 5.62Kohm 1/8W F A	1
707	RH04	E-R-0405-2943	RES. CF 6.8Kohm 1/8W J A	1
708	RH05	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
709	RH06	E-R-0405-4254	RES. CF 120Kohm 1/8W J A	1
710	RH07	E-R-0405-5402	RES. CF 22Kohm 1/4W J A	1
711	RH09	E-R-0405-3249	RES. CF 100ohm 1/4W J A	1
712	RH10	E-R-0405-4251	RES. CF 100Kohm 1/8W J A	1
713	RH11	E-R-0405-6190	RES. CF 130Kohm 1/4W J A	1
714	RH12	E-R-0405-3515	RES. CF 240Kohm 1/8W J A	1
715	RH14	E-R-0405-2943	RES. CF 6.8Kohm 1/8W J A	1
716	RH15	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
717	RH16	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
718	RH17	E-R-0405-6196	RES. CF 390ohm 1/2W J A	1
719	RH18	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
720	RH20	E-R-0405-2929	RES. CF 33Kohm 1/8W J A	1
721	RH21	E-R-0405-4252	RES. CF 10ohm 1/8W J A	1
722	RH22	E-R-0405-4273	RES. CF 82Kohm 1/8W J A	1
723	RH24	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
724	RH25	E-R-0405-3312	RES. CF 1.0ohm 1/8W J A	1
725	RH26	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
726	RH27	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
727	RH28	E-R-0405-6211	RES. MOF 47Kohm 2W J A-FK	1
728	RH30	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
729	RH31	E-R-0405-3250	RES. CF 10ohm 1/4W J A	1
730	RH32	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
731	RH33	E-R-0405-4268	RES. CF 22ohm 1/4W J A	1
732	RH34	E-R-0405-6210	RES. MOF 1.2ohm 2W J A-FK	1
733	RH36	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
734	RH41	E-R-0405-5790	RES. CEMENT 1ohm 5W J SQM	1
735	RH42	E-R-0405-6205	RES. MOF 0.15ohm 1W J A	1
736	RH43	E-R-0405-3295	RES. MOF 220ohm 1W J A-FK	1
737	RH44	E-R-0405-3250	RES. CF 10ohm 1/4W J A	1
738	RH45	E-R-0405-4235	RES. CF 470ohm 1/8W J A	1
739	RH46	E-R-0405-3283	RES. MOF 15ohm 2W J A-FK	1
740	RH47	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
741	RH50	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
742	RH51	E-R-0405-3451	RES. CF 27ohm 1/4W J A	1
743	RH52	E-R-0405-6215	RES. MOF(M) 2ohm 5W J A-FK	1
744	RH53	E-R-0405-0436	RES. CF 470ohm 1/2W J A	1
745	RH54	M-WR-0828-0086	JUMPER WIRE 10*0.6mm	1
746	RH55	E-R-0405-3281	RES. MOF 100ohm 2W J A-FK	1
747	RH56	E-R-0405-4233	RES. CF 1.0Kohm 1/8W J A	1
748	RH57	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
749	RH58	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
750	RH59	E-R-0405-6213	RES. MOF 6.8ohm 2W J A-FK	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
751	RH60	E-R-0405-6215	RES. MOF(M) 2ohm 5W J A-FK	1
752	RH61	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
753	RH62	E-R-0405-2912	RES. CF 2.0Kohm 1/8W J A	1
754	RH63	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
755	RH64	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
756	RH65	E-R-0405-5402	RES. CF 22Kohm 1/4W J A	1
757	RH66	E-R-0405-5402	RES. CF 22Kohm 1/4W J A	1
758	RH67	E-R-0405-5402	RES. CF 22Kohm 1/4W J A	1
759	RH68	E-R-0405-5402	RES. CF 22Kohm 1/4W J A	1
760	RH69	E-R-0405-4265	RES. CF 47ohm 1/8W J A	1
761	RH70	M-WR-0828-0088	JUMPER WIRE 15*0.6mm	1
762	RH72	E-R-0405-2939	RES. CF 47Kohm 1/8W J A	1
763	RH73	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
764	RH74	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
765	RH75	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
766	RH76	E-R-0405-5538	RES. MF 30.1Kohm 1/4W F A	1
767	RH77	E-R-0405-4238	RES. CF 4.7Kohm 1/8W J A	1
768	RH78	E-R-0405-4260	RES. CF 3.3Kohm 1/8W J A	1
769	RH79	E-R-0405-4274	RES. CF 1.0Kohm 1/4W J A	1
770	RH80	E-R-0405-4240	RES. CF 10Kohm 1/8W J A	1
771	RH81	E-R-0405-5402	RES. CF 22Kohm 1/4W J A	1
772	RH82	E-R-0405-5509	RES. CF 240Kohm 1/4W J A	1
773	RLA01	E-RL-0414-0032	RELAY 2POLES 250V/5A/12Vdc ST	1
774	RLH01	E-RL-0414-0080	RELAY 1POLES 240V/10A/12Vdc DT	1
775	SWA01B	M-MS-0808-4661	AC BRACKET AT1099DA	1
776	TA01	E-L-0407-1273	LINE FILTER ET-28 15mH-15mH 0.6@*58T	1
777	TA02	E-T-0408-0342	X'FMR EEL19 5.5mH AT1099DA	1
778	TA03	E-T-0408-0388	X'FMR EE4215 105uH (21"&22")	1
779	TA04	E-T-0408-0205	X'FMR SYNC UU10.5 1.75-1.75mH	1
780	TG01	E-FBT-0406-0206	F.B.T. 26.5KV 3000PF (CF1043E)	1
781	TG02	E-T-0408-0232	X'FMR EI25 24:240 Ts	1
782	TH02	E-T-0408-0251	X'FMR EE13 35mH 250:1	1
783	TH03	E-T-0408-0229	X'FMR DRIVE EI22 2mH-80uH	1
784	THA02	E-R-0405-5536	POSISTOR 8ohm 20A 2P	1
785	THA03	M-MS-0808-5903	NTCR SCK-0510 5ohm 10A F7.5	1
786	VRG01	E-R-0405-2998	SVR M/STAND/B 10Kohm B 6	1
787	VRH01	E-R-0405-2997	SVR M/STAND/B 1Kohm B 6	1
788	VRH02	E-R-0405-3000	SVR M/STAND/B 2Kohm B 6	1
789	WA01	M-MS-0808-1859	AC SOCKET 0714C PCB TYPE	1
790	WA01W	M-MS-0808-4845	WH SRA4.3@ 60mm 1015#18 G/Y	1
791	WA02	M-MS-0808-2136	WAFER 10mm 2P/WHITE	1
792	WA03	M-MS-0808-0065	WAFER 3.96mm 3P-1 180'	1
793	WA06	M-MS-0808-5907	WH XH2P-SCN2P 1185#26 280mm	1
794	WB01	M-MS-0808-5909	WH XH12P-SCN12P 1007#24 180mm + CORE	1
795	WC01	M-MS-0808-4841	WAFER 2.50mm 4P 180' Kink	1
796	WC02	M-MS-0808-1770	D-SUB Female 90' 15P 3ROW	1
797	WC05	M-MS-0808-5908	WH XH7P-SCN7P 1354(A+B)#28 260 mm+core	1
798	WE01	M-MS-0808-0079	WAFER 2.00mm 2P 180'Kink	1
799	WE02	M-MS-0808-0079	WAFER 2.00mm 2P 180'Kink	1
800	WE03	M-MS-0808-1866	WAFER EH2.5mm 3P 180' Kink	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
801	WE04	M-MS-0808-1858	WAFER 2.50mm 3P 180' Kink	1
802	WG01	M-MS-0808-1867	PIN HEADER 2.54mm2P 180'11.6mm	1
803	WH01	M-MS-0808-1172	WAFER 10/8mm 4P	1
804	WH05	M-MS-0808-0065	WAFER 3.96mm 3P-1 180'	1
805	WH05R	E-R-0405-6216	RES. CEMENT 9ohm 20W J SQHG	1
806	WH05S	M-SCW-0824-0150	SCREW,BTCW,M3.0x6L,Zn-Cc	1
807	WH05W	M-MS-0808-5910	WH VHR3P 1015#18 120/100mm BLACK	1
808	XTAC01	E-X-0415-0109	X'TAL 10MHz 49/U 30ppm 30PF 1mW	1
809	ZDA02	E-D-0403-1579	ZENER 18-2 17.5-18.3V 1/2W	1
810	ZDA03	E-D-0403-1646	ZENER 24-2 23.6-24.3V 1/2W	1
811	ZDA04	E-D-0403-1184	ZENER 9C1 8.9-9.3V 1/2W	1
812	ZDB01	E-D-0403-1724	ZENER 36-1 34.2-35.7V 1/2W	1
813	ZDC02	E-D-0403-1182	ZENER 6C1 5.8-6.1V 1/2W	1
814	ZDC03	E-D-0403-1182	ZENER 6C1 5.8-6.1V 1/2W	1
815	ZDG01	E-D-0403-1180	ZENER 4B2 3.8-4.0V 1/2W	1
816	ZDH01	E-D-0403-1185	ZENER 12B2 12.6-13.1V 1/2W	1
817	ZDH04	E-D-0403-1185	ZENER 12B2 12.6-13.1V 1/2W	1

11.5. C-BS-0303-0228 BASE(USB) G7397 PC+ABS 170105054010

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	6V01	PL-TB-0717-0083	SWIVEL BALL G7397 PC+ABS PF790	1
2	6V02	PL-PS-0715-0118	USB BASE G7397 ABS GS815	1
3	6V02M	PL-PD-0714-0029	BASE FOOT 18.8x5.8t	3
4	6V03	C-BT-0304-0011	USB BASE REAR COVER G7397	1

11.6. B-MB-0201-0486 CHASSIS ASS'Y

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	1P14	M-MS-0808-1819	PE BAG 360Lx200Wx0.04t/EUROPE	1
2	ACH01	B-VB-0202-0275	ASS'Y VIDEO BD GS815 (ICV02:VPS16)	1
3	ACH02	B-MB-0201-0433	ASS'Y MAIN/PWR/CTRL BD GS815	1
4	ACH06	M-SW-0815-0090	SW PUSH BOTTOM SFDLD11E7U-AA	1
5	ACH08	M-MS-0808-5187	WH VHR3P UL2464#18*2C+AL 440mm BLACK	1
6	ACH14	M-WR-0828-0084	WIRE SADDLE/ YJ98	7
7	ACH19	M-MS-0808-5924	SUPPORT BRACKET LEFT	1
8	ACH20	M-MS-0808-5925	SUPPORT BRACKET RIGHT	1
9	ACH23	M-MS-0808-5926	CHASSIS HOLDER AT398HA	1
10	ACH26	M-MS-0808-1880	CRT BOARD BRACKET	1
11	ACH28	M-MS-0808-4670	VIDEO BD SHIELDING	1
12	ACH31	M-MS-0808-5202	CRT BD SHIELDING-A	1
13	ACH32	M-MS-0808-5938	COPPER CLAW AT398HA	2
14	ACH34	M-SCW-0824-0199	SCREW,BTCW,M3.0x8L,Zz-Cc	25
15	ACH37	M-MS-0808-5194	FBT CLIPS / HV-3	1
16	ACH38	M-MS-0808-5917	WH SRA4.3-ELR3.8 1015#18 100mm	1
17	ACH39	M-MS-0808-5912	WH SRA4.3@-SRA5.4@ 1015#18 410mm	1
18	ACH40	M-MS-0808-5911	WH SRA4.3 0.12/112C 130mm + H-S	1
19	ACH41	M-MS-0808-5913	WH SRA4.3@-SRA5.4@ 0.12/112C 100mm+H-	4
20	ACH42	M-MS-0808-5937	BOTTOM SHIELDING AT1097FB,AT1099DB	1
21	ACH43	M-MS-0808-1844	SPACER SUPPORTS/FCB-10	9
22	ACH45	M-MS-0808-4724	.INF&.ICM CD ROM DATE:000512	1
23	ACH46	M-MS-0808-5920	WIRE MOUNT FW-4D-3M	1
24	ACH47	M-MS-0808-5921	CABLE CLAMP PC-4	2
25	ACH48	M-MS-0808-5914	WH SRA4.3 1015#18 300mm BLK	2
26	ACH49	M-MS-0808-5915	WH SRA4.3-SRA4.3 1015#18 160mm BLK	1
27	ACH50	M-MS-0808-5916	WH SRA4.3 1015#18 110mm BLK	1
28	ACH51	M-MS-0808-5922	SPACER SUPPORT ACBS-9Y	1
29	ACH52	M-MS-0808-5193	RUBBER FOOT	2
30	ACH53	PL-CL-0710-0022	WIRE CLIPS NYLON 66(UL)	2
31	ACH54	M-MS-0808-3300	CABLE TIE (YJ-142S)	3
32	ASCH05	E-L-0407-1271	DEGAUSSING 21" 19.6ohm 0.5x90Ts	1
33	ASMO04	C-FP-0301-0732	BEZEL ASS'Y GS815	1
34	BC06	M-LB-0813-0454	B/C LBL VIEWSONIC GS815	1
35	BZ16	M-SCW-0824-0202	SCREW,BPCTW,#5.0*25L,Zn-Cc	4
36	CR01	E-CRT-0409-0173	CRT 21" M51LQV183X48 (A) HIT. .25mm	1
37	CR02	M-MS-0808-2060	HEAT S-T 4.0*0.25 15mm 125'	2
38	CR04	M-MS-0808-5919	BRAID 0.12/112C 1015#18 1030mm AT398HA	1
39	CR07	M-LB-0813-0097	FDA WARNING LBL AT396D	1
40	PC01	A-PC-0106-0043	POWER CORD 6ft 110V UL/CSA AL	1
41	SG01	A-VC-0101-0176	S.CABLE 1800mm 15(3R-3R) 3+6C / PC99	1
42	Y001	A-UG-0107-0401	MANUAL VIEWSONIC GS815	1
43	Y002	M-MS-0808-4721	TCO99 ECO DOCUMENT	1

11.7. B-VB-0202-0275 VIDEO BD (ICV02: VPS16)

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	CV01	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
2	CV02	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
3	CV03	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
4	CV04	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
5	CV05	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
6	CV06	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
7	CV07	E-C-0404-1905	E/C GEN. 220uF 16V 105' F	1
8	CV08	E-C-0404-4045	C/M Multi 0.022uF 50V X7R 0805	1
9	CV09	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
10	CV10	E-C-0404-4040	E/C GEN. 47uF 200V 105' K	1
11	CV11	E-C-0404-1966	C/C DISK 0.01uF 500V Z5U F-K	1
12	CV13	E-C-0404-3707	C/M Multi 30PF 50V NPO 0805	1
13	CV14	E-C-0404-1966	C/C DISK 0.01uF 500V Z5U F-K	1
14	CV15	E-C-0404-3544	C/C DISK 33PF 500V NPO F-K	1
15	CV16	E-C-0404-1966	C/C DISK 0.01uF 500V Z5U F-K	1
16	CV17	E-C-0404-2162	E/C GEN. 100uF 100V 105' K	1
17	CV18	E-C-0404-1968	C/M Multi 0.1uF 50V Z5U 0805	1
18	CV20	E-C-0404-3599	C/M Multi 0.01uF 50V X7R 0805	1
19	CV24	E-C-0404-2339	C/M Multi 120PF 50V NPO 0805	1
20	CV25	E-C-0404-2339	C/M Multi 120PF 50V NPO 0805	1
21	CV26	E-C-0404-1964	E/C N-P. 1uF 250V 105' F	1
22	CV27	E-C-0404-1964	E/C N-P. 1uF 250V 105' F	1
23	CV28	E-C-0404-1964	E/C N-P. 1uF 250V 105' F	1
24	CV29	E-C-0404-1966	C/C DISK 0.01uF 500V Z5U F-K	1
25	CV30	E-C-0404-1901	E/C GEN. 1.0uF 250V 105' F	1
26	CV31	E-C-0404-1901	E/C GEN. 1.0uF 250V 105' F	1
27	CV32	E-C-0404-1901	E/C GEN. 1.0uF 250V 105' F	1
28	CV34	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
29	CV35	E-C-0404-1966	C/C DISK 0.01uF 500V Z5U F-K	1
30	CV37	E-C-0404-1968	C/M Multi 0.1uF 50V Z5U 0805	1
31	CV38	E-C-0404-1965	C/C DISK 0.01uF 2KV Z5U F-K	1
32	CV39	E-C-0404-1667	P/C PPN 0.0047uF 630V J F-K	1
33	CV40	E-C-0404-1968	C/M Multi 0.1uF 50V Z5U 0805	1
34	CV41	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
35	CV42	E-C-0404-1968	C/M Multi 0.1uF 50V Z5U 0805	1
36	CV43	E-C-0404-1892	E/C GEN. 100uF 16V 105' F	1
37	CV49	E-C-0404-1814	C/M Multi 22PF 50V NPO 0805	1
38	CV50	E-C-0404-3705	C/M Multi 0.1uF 50V Y5V 1206	1
39	CV51	E-C-0404-2339	C/M Multi 120PF 50V NPO 0805	1
40	CV52	E-C-0404-4044	C/C DISK 3.0PF 500V NPO F-K	1
41	CV55	E-C-0404-1969	C/M Multi 330PF 50V NPO 0805	1
42	CV56	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
43	CV57	E-C-0404-3707	C/M Multi 30PF 50V NPO 0805	1
44	CV58	E-C-0404-1969	C/M Multi 330PF 50V NPO 0805	1
45	CV59	E-C-0404-4044	C/C DISK 3.0PF 500V NPO F-K	1
46	CV60	E-C-0404-4044	C/C DISK 3.0PF 500V NPO F-K	1
47	CV61	E-C-0404-3707	C/M Multi 30PF 50V NPO 0805	1
48	CV63	E-C-0404-1796	C/M Multi 0.22uF 50V Y5V 0805	1
49	CV64	E-C-0404-1796	C/M Multi 0.22uF 50V Y5V 0805	1
50	CV65	E-C-0404-1796	C/M Multi 0.22uF 50V Y5V 0805	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
51	CV66	E-C-0404-1796	C/M Multi 0.22uF 50V Y5V 0805	1
52	CV67	E-C-0404-1911	E/C GEN. 47uF 16V 105' F	1
53	CV68	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
54	CV69	E-C-0404-4039	E/C GEN. 47uF 50V 105' F	1
55	CV72	E-C-0404-1875	E/C GEN. 10uF 50V 105' F	1
56	CV76	E-C-0404-1968	C/M Multi 0.1uF 50V Z5U 0805	1
57	CV77	E-C-0404-3706	C/M Multi 0.22uF 50V Y5V 1206	1
58	CV78	E-C-0404-1970	C/M Multi 4700PF 50V X7R 0805	1
59	DV01	E-D-0403-0531	GEN. DIODE 1N4148 T	1
60	DV02	E-D-0403-0531	GEN. DIODE 1N4148 T	1
61	DV03	E-D-0403-1255	GEN. DIODE BAV21 T	1
62	DV04	E-D-0403-1179	GEN. DIODE 1N4002F T	1
63	DV05	E-D-0403-1255	GEN. DIODE BAV21 T	1
64	DV06	E-D-0403-1255	GEN. DIODE BAV21 T	1
65	DV07	E-D-0403-0531	GEN. DIODE 1N4148 T	1
66	DV08	E-D-0403-0531	GEN. DIODE 1N4148 T	1
67	DV09	E-D-0403-0531	GEN. DIODE 1N4148 T	1
68	DV11	E-D-0403-0531	GEN. DIODE 1N4148 T	1
69	DV12	E-D-0403-0531	GEN. DIODE 1N4148 T	1
70	DV13	E-D-0403-0531	GEN. DIODE 1N4148 T	1
71	DV14	E-D-0403-0531	GEN. DIODE 1N4148 T	1
72	DV17	E-D-0403-0531	GEN. DIODE 1N4148 T	1
73	DV18	E-D-0403-0531	GEN. DIODE 1N4148 T	1
74	ICV01	E-IC-0401-1978	IC TDA4887 SDIP 24PIN	1
75	ICV02	E-IC-0401-1129	IC VPS16 DIP 15PIN	1
76	ICV02H	M-MS-0808-5199	VIDEO BD HEAT SINK GS815	1
77	ICV02S	M-SCW-0824-0432	SCREW,BTCW,M3.0x12L,Zn-Cc	2
78	ICV03	E-IC-0401-1984	IC L7808CV TO-220 3PIN	1
79	ICV04	E-IC-0401-0086	IC LM393N DIP-8	1
80	ICV05	E-IC-0401-1820	IC D1642 DIP 16PIN V3.0	1
81	ICV06	E-IC-0401-0080	IC LM324N DIP-14	1
82	LV01	E-L-0407-0559	PEAKING COIL 0.22uH 1/4W K A-T	1
83	LV02	E-L-0407-0559	PEAKING COIL 0.22uH 1/4W K A-T	1
84	LV03	E-L-0407-0559	PEAKING COIL 0.22uH 1/4W K A-T	1
85	LV04	E-L-0407-0551	PEAKING COIL 3.3uH 1/4W K A-T	1
86	LV05	M-WR-0828-0145	JUMPER WIRE 12.5*0.6mm	1
87	LV06	E-L-0407-0615	FERRITE CORE A6 RH 3.5x9x0.8-T52	1
88	LV07	E-L-0407-0615	FERRITE CORE A6 RH 3.5x9x0.8-T52	1
89	LV10	E-L-0407-0556	FERRITE CORE W8 R6H 6x10 2 1/2 T	1
90	LV11	E-R-0405-5515	RES. CF 4.7ohm 1/4W J A	1
91	LV12	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
92	LV13	E-L-0407-0615	FERRITE CORE A6 RH 3.5x9x0.8-T52	1
93	LV14	E-L-0407-0615	FERRITE CORE A6 RH 3.5x9x0.8-T52	1
94	LV15	E-L-0407-0551	PEAKING COIL 3.3uH 1/4W K A-T	1
95	LV16	E-L-0407-0615	FERRITE CORE A6 RH 3.5x9x0.8-T52	1
96	PCB2	B-VB-0202-0287	PCB VIDEO BD FR4 150x120mmx1.6t D	1
97	QV04	E-Q-0402-0424	TRANSISTOR BF422 TO-92 T	1
98	QV05	E-Q-0402-0424	TRANSISTOR BF422 TO-92 T	1
99	QV06	E-Q-0402-0424	TRANSISTOR BF422 TO-92 T	1
100	RV01	E-R-0405-4262	RES. CF 75ohm 1/8W J 1206	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
101	RV02	E-R-0405-4262	RES. CF 75ohm 1/8W J 1206	1
102	RV03	E-R-0405-4262	RES. CF 75ohm 1/8W J 1206	1
103	RV04	E-R-0405-4236	RES. CF 470ohm 1/8W J 1206	1
104	RV07	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
105	RV08	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
106	RV09	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
107	RV10	E-R-0405-4264	RES. CF 47ohm 1/8W J 1206	1
108	RV100	E-R-0405-2891	RES. CF 100Kohm 1/8W J 1206	1
109	RV101	E-R-0405-5394	RES. CF 10ohm 1/8W J 1206	1
110	RV102	E-R-0405-5394	RES. CF 10ohm 1/8W J 1206	1
111	RV103	E-R-0405-5394	RES. CF 10ohm 1/8W J 1206	1
112	RV105	E-R-0405-3303	RES. CF 4.3Kohm 1/8W J 1206	1
113	RV109	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
114	RV114	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
115	RV115	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
116	RV116	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
117	RV12	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
118	RV13	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
119	RV14	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
120	RV15	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
121	RV16	E-R-0405-5537	RES. CF 180Kohm 1/4W J A	1
122	RV19	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
123	RV21	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
124	RV24	E-R-0405-4257	RES. CF 2.2Kohm 1/8W J 1206	1
125	RV28	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
126	RV29	E-R-0405-4257	RES. CF 2.2Kohm 1/8W J 1206	1
127	RV30	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
128	RV31	E-R-0405-3261	RES. CF 33ohm 1/4W J A	1
129	RV33	E-R-0405-5537	RES. CF 180Kohm 1/4W J A	1
130	RV34	E-R-0405-5537	RES. CF 180Kohm 1/4W J A	1
131	RV36	E-R-0405-3267	RES. CF 47ohm 1/4W J A	1
132	RV37	E-R-0405-3267	RES. CF 47ohm 1/4W J A	1
133	RV38	E-R-0405-3267	RES. CF 47ohm 1/4W J A	1
134	RV43	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
135	RV44	E-R-0405-1461	RES. CF 75Kohm 1/8W J 1206	1
136	RV45	E-R-0405-4247	RES. CF 100ohm 1/8W J 1206	1
137	RV46	E-R-0405-1461	RES. CF 75Kohm 1/8W J 1206	1
138	RV47	E-R-0405-1461	RES. CF 75Kohm 1/8W J 1206	1
139	RV53	E-R-0405-5407	RES. CF 33Kohm 1/4W J A	1
140	RV54	E-R-0405-5407	RES. CF 33Kohm 1/4W J A	1
141	RV55	E-R-0405-5407	RES. CF 33Kohm 1/4W J A	1
142	RV56	E-R-0405-5391	RES. CF 1.0Mohm 1/8W J 1206	1
143	RV57	E-R-0405-5391	RES. CF 1.0Mohm 1/8W J 1206	1
144	RV58	E-R-0405-5391	RES. CF 1.0Mohm 1/8W J 1206	1
145	RV59	E-R-0405-5498	RES. CF 120Kohm 1/8W J 1206	1
146	RV60	E-R-0405-5498	RES. CF 120Kohm 1/8W J 1206	1
147	RV61	E-R-0405-5498	RES. CF 120Kohm 1/8W J 1206	1
148	RV62	E-R-0405-5390	RES. CF 100Kohm 1/2W J A	1
149	RV63	E-R-0405-2349	RES. CF 1.0Kohm 1/2W J A	1
150	RV65	E-R-0405-4256	RES. CF 150ohm 1/8W J 1206	1

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
151	RV66	E-R-0405-4236	RES. CF 470ohm 1/8W J 1206	1
152	RV67	E-R-0405-4236	RES. CF 470ohm 1/8W J 1206	1
153	RV68	E-R-0405-4236	RES. CF 470ohm 1/8W J 1206	1
154	RV69	E-R-0405-4236	RES. CF 470ohm 1/8W J 1206	1
155	RV70	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
156	RV71	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
157	RV72	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
158	RV73	E-R-0405-4259	RES. CF 3.3Kohm 1/8W J 1206	1
159	RV74	E-R-0405-4264	RES. CF 47ohm 1/8W J 1206	1
160	RV75	E-R-0405-4264	RES. CF 47ohm 1/8W J 1206	1
161	RV76	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
162	RV77	E-R-0405-4259	RES. CF 3.3Kohm 1/8W J 1206	1
163	RV81	E-R-0405-4232	RES. CF 1.0Kohm 1/8W J 1206	1
164	RV83	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
165	RV84	E-R-0405-5411	RES. CF 33ohm 1/8W J 1206	1
166	RV86	E-R-0405-4264	RES. CF 47ohm 1/8W J 1206	1
167	RV87	E-R-0405-4266	RES. CF 4.7ohm 1/8W J 1206	1
168	RV88	E-R-0405-4266	RES. CF 4.7ohm 1/8W J 1206	1
169	RV89	E-R-0405-4257	RES. CF 2.2Kohm 1/8W J 1206	1
170	RV90	E-R-0405-5786	RES. CF 680ohm 1/8W J 1206	1
171	RV91	E-R-0405-6198	RES. CF 43Kohm 1/8W J 1206	1
172	RV92	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
173	RV94	E-R-0405-2891	RES. CF 100Kohm 1/8W J 1206	1
174	RV95	E-R-0405-1424	RES. CF 56Kohm 1/8W J 1206	1
175	RV96	E-R-0405-3303	RES. CF 4.3Kohm 1/8W J 1206	1
176	RV97	E-R-0405-3303	RES. CF 4.3Kohm 1/8W J 1206	1
177	RV98	E-R-0405-4239	RES. CF 10Kohm 1/8W J 1206	1
178	RV99	E-R-0405-4237	RES. CF 4.7Kohm 1/8W J 1206	1
179	SGV01	E-SP-0417-0075	SPARK GAP 200V T	1
180	SGV02	E-SP-0417-0075	SPARK GAP 200V T	1
181	SGV03	E-SP-0417-0075	SPARK GAP 200V T	1
182	SGV04	E-SP-0417-0054	SPARK GAP 1.2KV A	1
183	SGV05	E-SP-0417-0078	SPARK GAP 300V T R	1
184	WV01	M-MS-0808-4842	WAFER 2.50mm 7P 90' Kink	1
185	WV02	M-MS-0808-1768	WAFER 2.50mm 12P 90' Kink	1
186	WV04	M-MS-0808-1171	WAFER 10mm 2P(BLACK)	1
187	WV05	M-MS-0808-5905	CRT SOCKET ISDW01S HITACHI	1
188	WV08	M-MS-0808-5906	WAFER 2.50mm 2P 90' Kink	1
189	ZDV01	E-D-0403-1184	ZENER 9C1 8.9-9.3V 1/2W	1

11.8. C-FP-0301-0286 BEZEL ASS'Y

ITEM	LOC.	VS PART NUMBER	DESCRIPTION	Q'TY
1	BZ01	B-SB-0221-0206	ASS'Y DISPLAY BD PF775	1
2	BZ06	E-L-0407-1272	PURITY COIL 21" 180ohm 0.20x200Ts	1
3	BZ07	C-FP-0301-0286	BEZEL VIEWSONIC GS815 G7397 PC+ABS	1
4	BZ09	PL-NB-0707-0154	POWER KNOB G7397 GS815	1
5	BZ10	PL-FK-0709-0039	FUNCTION KNOB G7397 GS815	1
6	BZ12	M-MS-0808-0041	SPRING/PT771/P795	1
7	BZ14	M-SCW-0824-0201	SCREW,BBC,M4.0x14L,Zn-Cc	20
8	BZ15	M-SCW-0824-0199	SCREW,BTCW,M3.0x8L,Zz-Cc	6

Chapter 12 Disassembly Instructions

12.1. Rear Cover Ass'Y Removal

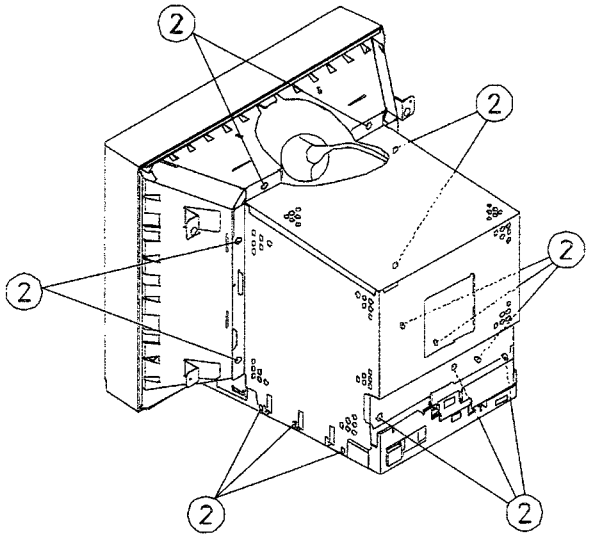
Note: spread a mat underneath to avoid damaging the CRT surface.

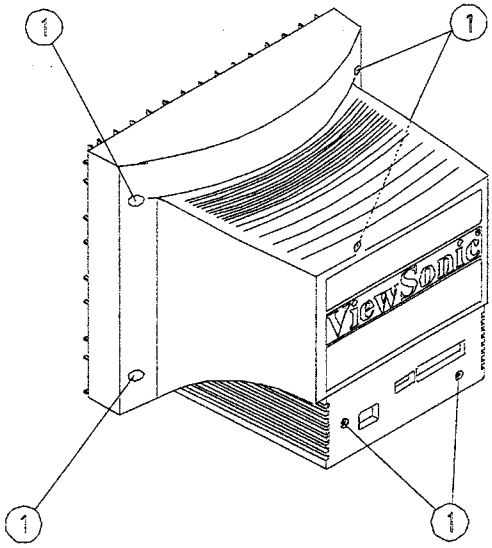
12.1.1. Remove six screws (1) from rear cover

12.1.2. Separate the rear cover

12.1.3. Remove fifteen screws (2) from shielding cover.

12.1.4. Separate the shielding cover.





12.2. Video BD Ass'Y Removal

12.2.1. Remove one screw (3) from CRT

12.2.2. Separate the CRT BD bracket

12.2.3. Remove Video BD Ass'Y from CRT

12.2.4. Remove two screws (4) from Video BD shielding

12.2.5. Separate Video BD shielding

12.2.6. Remove the connector (6) (WV08) of the DC power cable

12.2.7. Remove the connector (7) (WV04) of the GND cable

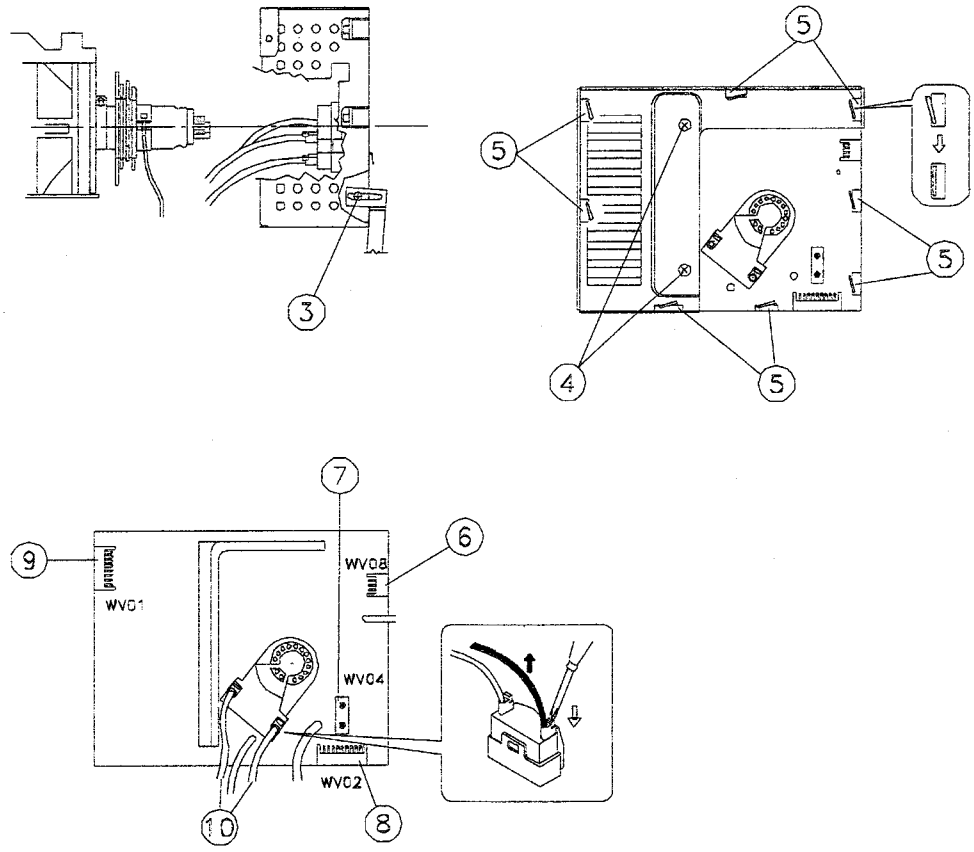
12.2.8. Remove the connector (8) (WV02) of the control cable

12.2.9. Remove the connector (9) (WV01) of the RGB cable

12.2.10. Remove the connector (10) focus (H,V)

12.2.11. Twist the shielding –A hook Pin (5) until parallel to the slot then pull out

12.2.12. Separate the Video BD



12.3. Main BD Ass'Y Removal

12.3.1. Remove the HV Line (11) from CRT

12.3.2. Separate Main BD Ass'Y and Chassis Ass'Y from CRT

12.3.3. Remove the connector (12) (WH01,WH02) of the DY

12.3.4. Remove the connector (13) (WE01,WE02) and (15) (WE03) of the convergence coil and tilt coil

12.3.5. Remove the connector (15) (WE04) and (16) (WC01) of the purity coil and keyboard cable

12.3.6. Remove the connector (17) (WX01,WX02,WX03,WX04) of the corner purity coil

12.3.7. Remove the connector (19) (WA02) and (20) (WA03) of the lead coil and AC power cable

12.3.8. Remove the ASS'Y Power Factor BD (18)

12.3.9. Remove of the BNC cable (22) and Video BD cable (21) and DC power cable (23)

12.3.10. Remove five screws (24) from heat sink

12.3.11. Separate heat sink from the "heat sink for EMI"

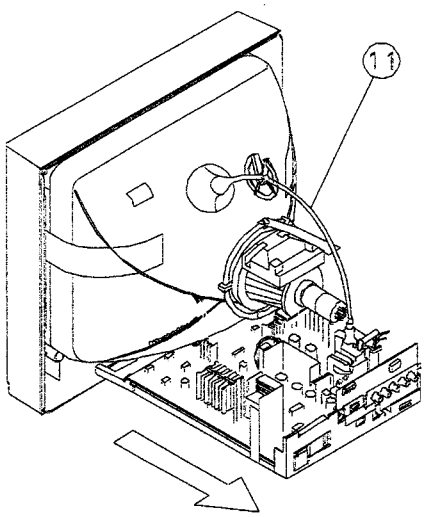
12.3.12. Remove one screw (30) from "heat sink for EMI"

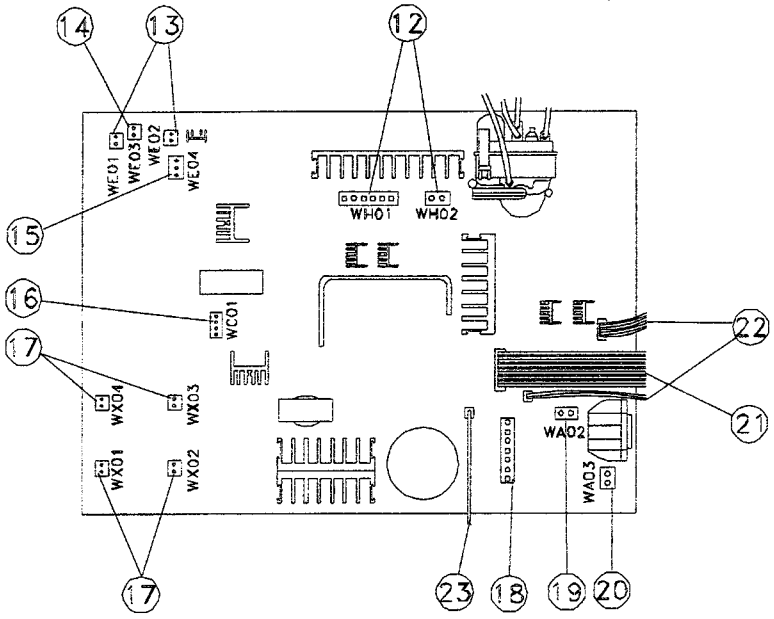
12.3.13. Remove six screws (25) and one screw (26) from Main BD

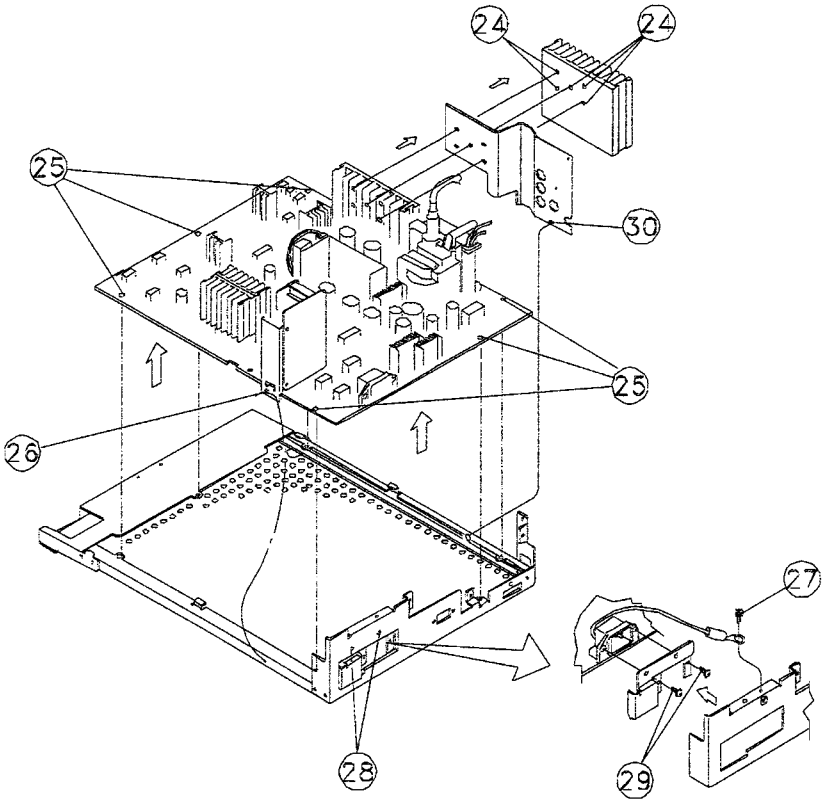
12.3.14. Remove one screw (27) and two screws (28) from Chassis bracket rear

12.3.15. Remove two screws (29) from AC bracket

12.3.16. Separate AC bracket and Main BD







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Chapter 13. Schematic Diagrams

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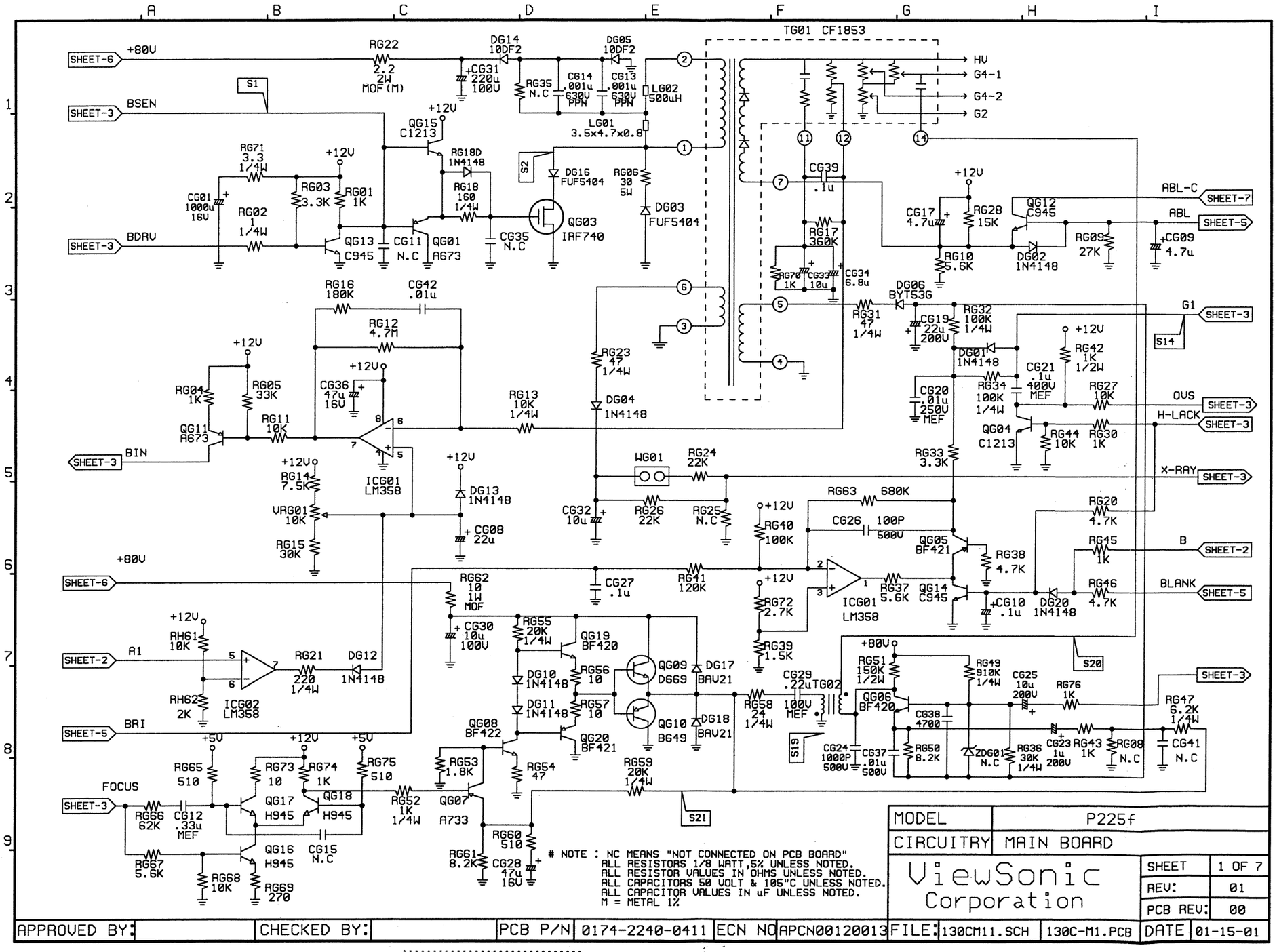

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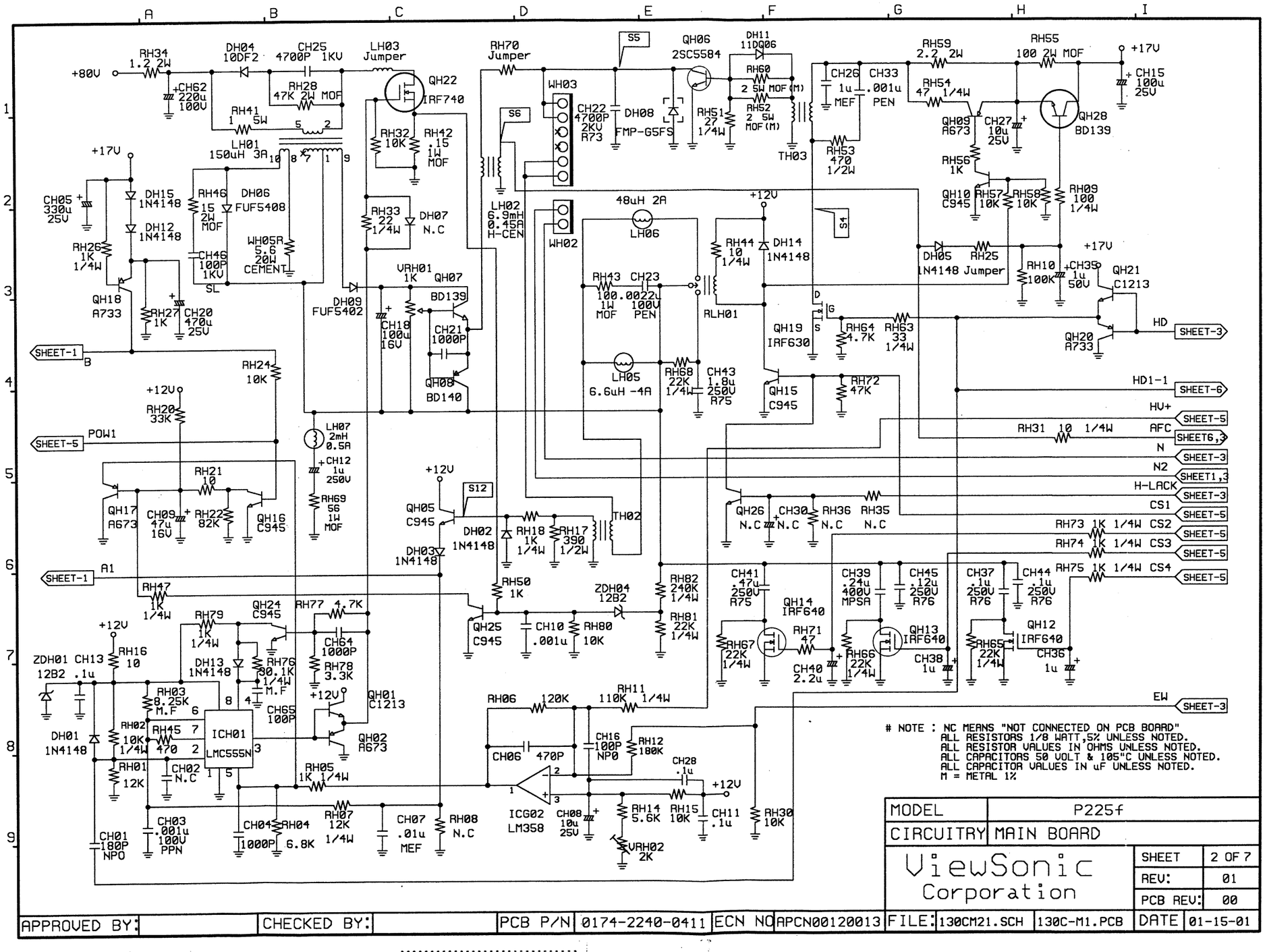
+80V
RH34 1.2 2W
DH04 10DF2
CH25 4700P 1KV
LH03 Jumper
CH62 220u 100V
RH28 47K 2W MOF
RH41 1 5W
LH01 150uH 3A
QH22 IRF740
RH70 Jumper
S5
QH06 2SC5584
DH11 11DQ06
RH60 2 5W MOF(M)
RH52 2 5W MOF(M)
RH51 27 1/4W
TH03
CH26 1u MEF
CH33 .001u PEN
RH53 470 1/2W
RH59 2.2 2W
RH55 100 2W MOF
RH54 47 1/4W
+17V
CH15 100u 25V
QH09 A673
CH27 10u 25V
QH28 BD139
RH56 1K
WH03
CH22 4700P 2KV R73
DH08 FMP-G5FS
S6
LH02 6.9mH 0.45A H-CEN
WH02
48uH 2A
LH06
+12V
S4
RH44 10 1/4W
DH14 1N4148
RLH01
RH43 100.0022u 1W MOF
CH23 100V PEN
LH05 6.6uH -4A
RH68 22K 1/4W
CH43 1.8u 250V R75
QH19 IRF630
RH64 4.7K
RH63 33 1/4W
QH15 C945
RH72 47K
DH05 1N4148 Jumper
RH25
RH10 100K
+CH35 1u 50V
QH21 C1213
QH20 A733
HD
SHEET-3
HD1-1
SHEET-6
HV+
SHEET-5
RH31 10 1/4W
AFC
SHEET6,3
N
SHEET-3
N2
SHEET1,3
H-LACK
SHEET-3
CS1
SHEET-5
RH73 1K 1/4W CS2
SHEET-5
RH74 1K 1/4W CS3
SHEET-5
RH75 1K 1/4W CS4
SHEET-5
EW
SHEET-3
CH05 330u 25V
DH15 1N4148
DH12 1N4148
RH26 1K 1/4W
QH18 A733
RH46 15 2W MOF
DH06 FUF5408
CH46 100P 1KV SL
WH05R 5.6 20W CEMENT
RH27 1K
CH20 470u 25V
RH32 10K
RH42 .15 1W MOF
RH33 22 1/4W
DH07 N.C
DH09 FUF5402
VRH01 1K
QH07 BD139
CH18 100u 16V
CH21 1000P
QH08 BD140
SHEET-1
B
RH24 10K
+12V
RH20 33K
SHEET-5
POW1
LH07 2mH 0.5A
+CH12 1u 250V
RH69 56 1W MOF
RH21 10
QH17 A673
CH09 47u 16V
RH22 82K
QH16 C945
+12V
S12
QH05 C945
DH02 1N4148
RH18 1K 1/4W
RH17 390 1/2W
TH02
DH03 1N4148
SHEET-1
A1
RH47 1K 1/4W
RH50 1K
ZDH04 12B2
RH82 240K 1/4W
RH81 22K 1/4W
QH25 C945
CH10 .001u
RH80 10K
QH24 C945
RH77 4.7K
RH79 1K 1/4W
CH64 1000P
RH78 3.3K
+12V
RH16 10
ZDH01 12B2
CH13 .1u
DH13 1N4148
RH76 30.1K 1/4W M.F
QH01 C1213
QH02 A673
RH03 8.25K M.F
RH02 10K 1/4W
RH45 470
ICH01 LMC555N
CH65 100P
DH01 1N4148
RH01 12K
CH02 N.C
RH05 1K 1/4W
RH06 120K
RH11 110K 1/4W
CH06 470P
CH16 100P NP0
RH12 180K
CH28 .1u
+12V
ICG02 LM358
CH08 10u 25V
RH14 5.6K
RH15 10K
CH11 .1u
RH30 10K
VRH02 2K
CH01 180P NPO
CH03 .001u 100V PPN
CH04 1000P
RH04 6.8K
RH07 12K 1/4W
CH07 .01u MEF
RH08 N.C
QH26 N.C
CH30 N.C
RH36 N.C
RH35 N.C
CH41 .47u 250V R75
QH14 IRF640
RH67 22K 1/4W
RH71 47
CH40 2.2u
RH66 22K 1/4W
CH39 .24u 400V MPSA
CH45 .12u 250V R76
QH13 IRF640
CH38 1u
CH37 .1u 250V R76
CH44 .1u 250V R76
QH12 IRF640
RH65 22K 1/4W
CH36 1u
NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%
MODEL P225f
CIRCUITRY MAIN BOARD
ViewSonic Corporation
SHEET 2 OF 7
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PCB REV: 00
APPROVED BY:
CHECKED BY:
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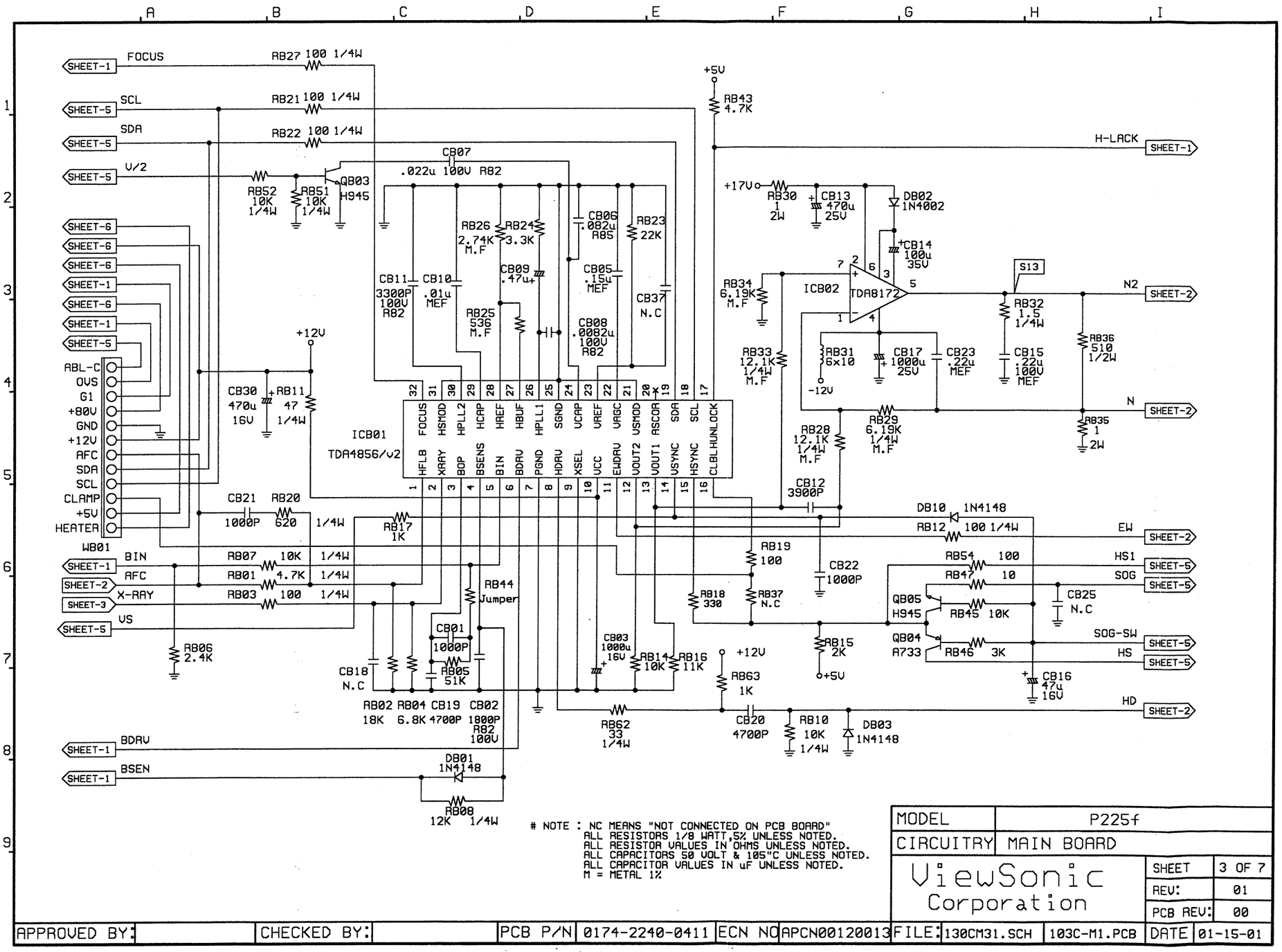
ECN NO APCN00120013
FILE: 130CM21.SCH 130C-M1.PCB
DATE 01-15-01



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ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

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ViewSonic Corporation	
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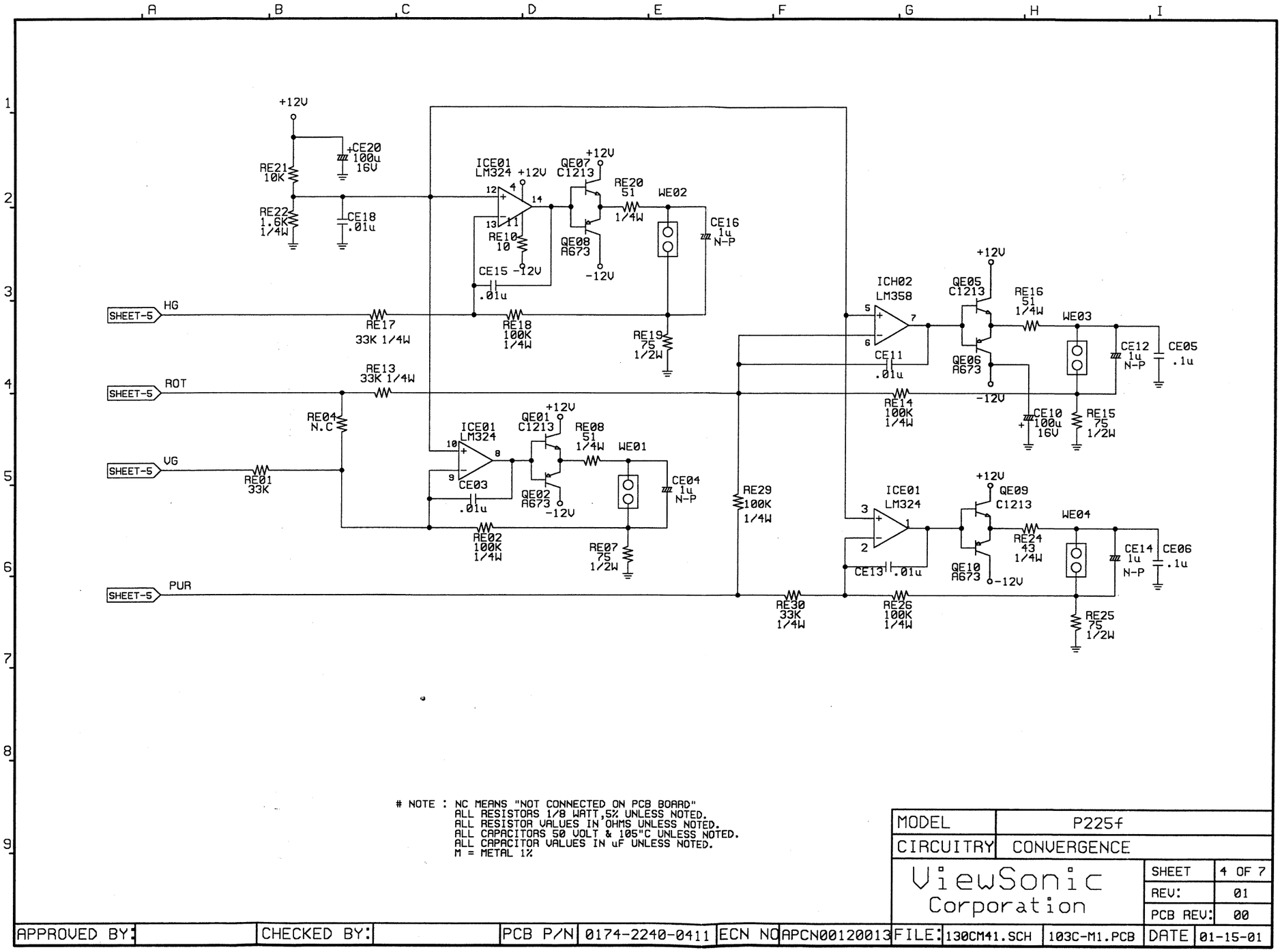

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ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
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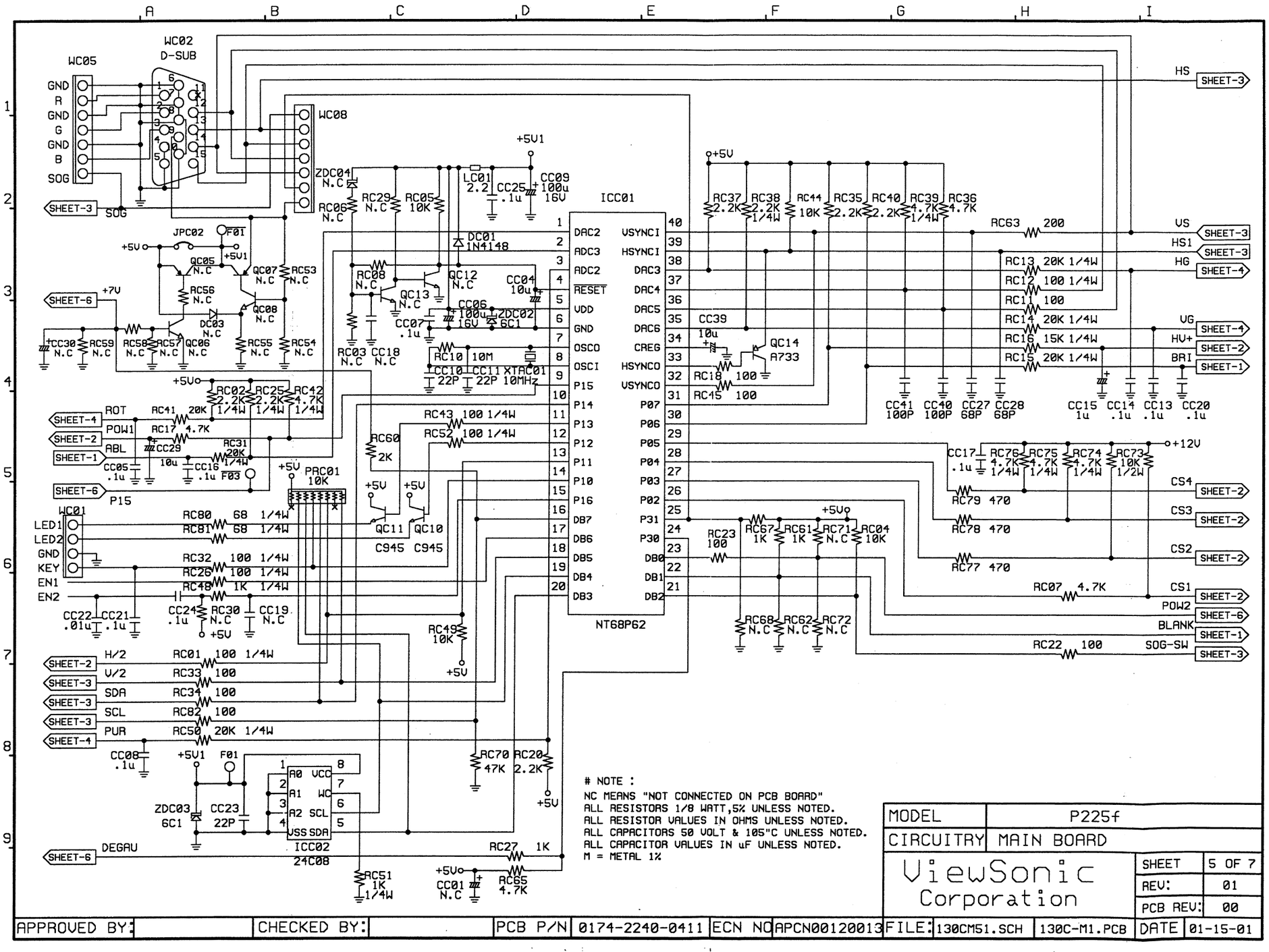
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

MODEL	P225f
CIRCUITRY	CONVERGENCE
ViewSonic Corporation	SHEET 4 OF 7
	REV: 01
	PCB REV: 00

APPROVED BY:		CHECKED BY:		PCB P/N	0174-2240-0411	ECN NO	APCN00120013	FILE:	130CM41.SCH	103C-M1.PCB	DATE 01-15-01


WC02
D-SUB
WC05
GND
R
GND
G
GND
B
SOG
WC08
ZDC04 N.C
RC06 N.C
RC29 N.C
RC05 10K
LC01 2.2
CC25 .1u
CC09 100u 16V
+5V1
ICC01
NT68P62
DAC2
ADC3
ADC2
RESET
VDD
GND
OSCO
OSCI
P15
P14
P13
P12
P11
P10
P16
DB7
DB6
DB5
DB4
DB3
VSYNCI
HSYNCI
DAC3
DAC4
DAC5
DAC6
CREG
HSYNCO
VSYNCO
P07
P06
P05
P04
P03
P02
P31
P30
DB0
DB1
DB2
HS
SHEET-3
VS
HS1
HG
SHEET-4
VG
HV+
SHEET-2
BRI
SHEET-1
RC63 200
RC13 20K 1/4W
RC12 100 1/4W
RC11 100
RC14 20K 1/4W
RC16 15K 1/4W
RC15 20K 1/4W
RC37 2.2K
RC38 2.2K 1/4W
RC44 10K
RC35 2.2K
RC40 2.2K
RC39 4.7K 1/4W
RC36 4.7K
+5V
CC41 100P
CC40 100P
CC27 68P
CC28 68P
CC15 1u
CC14 .1u
CC13 .1u
CC20 .1u
CC39 10u
QC14 A733
RC18 100
RC45 100
JPC02
F01
+5V1
QC05 N.C
QC07 N.C
RC53 N.C
RC56 N.C
QC08 N.C
DC03 N.C
SHEET-6
+7V
CC30 N.C
RC59 N.C
RC58 N.C
RC57 N.C
QC06 N.C
RC55 N.C
RC54 N.C
RC08 N.C
QC13 N.C
QC12 N.C
CC04 10u
CC06 100u 16V
ZDC02 6C1
CC07 .1u
RC03 N.C
CC18 N.C
RC10 10M
CC10 22P
CC11 22P
XTAC01 10MHz
+5Vo
RC02 2.2K
RC25 2.2K
RC42 4.7K
1/4W
SHEET-4
ROT
RC41 20K
SHEET-2
POW1
RC17 4.7K
SHEET-1
ABL
CC29 10u
RC31 20K 1/4W
CC05 .1u
CC16 .1u
F03
SHEET-6
P15
PRC01 10K
RC43 100 1/4W
RC52 100 1/4W
RC60 2K
+5V
QC11 C945
QC10 C945
WC01
LED1
LED2
GND
KEY
EN1
EN2
RC80 68 1/4W
RC81 68 1/4W
RC32 100 1/4W
RC26 100 1/4W
RC48 1K 1/4W
CC22 .01u
CC21 .1u
CC24 .1u
RC30 N.C
CC19 N.C
RC49 10K
SHEET-2
H/2
RC01 100 1/4W
SHEET-3
V/2
RC33 100
SDA
RC34 100
SCL
RC82 100
SHEET-4
PUR
RC50 20K 1/4W
CC08 .1u
ZDC03 6C1
CC23 22P
ICC02 24C08
A0 VCC
A1 WC
A2 SCL
VSS SDA
SHEET-6
DEGAU
RC51 1K 1/4W
RC70 47K
RC20 2.2K
RC27 1K
CC01 N.C
RC65 4.7K
RC23 100
RC67 1K
RC61 1K
RC71 N.C
RC04 10K
RC68 N.C
RC62 N.C
RC72 N.C
CC17 .1u
RC76 4.7K 1/4W
RC75 4.7K 1/4W
RC74 4.7K 1/4W
RC73 10K 1/2W
+12V
RC79 470
RC78 470
RC77 470
CS4
CS3
CS2
CS1
SHEET-2
RC07 4.7K
POW2
SHEET-6
BLANK
SHEET-1
RC22 100
SOG-SW
SHEET-3
NOTE :
NC MEANS "NOT CONNECTED ON PCB BOARD"
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ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%
MODEL P225f
CIRCUITRY MAIN BOARD
ViewSonic Corporation
SHEET 5 OF 7
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PCB REV: 00
APPROVED BY:
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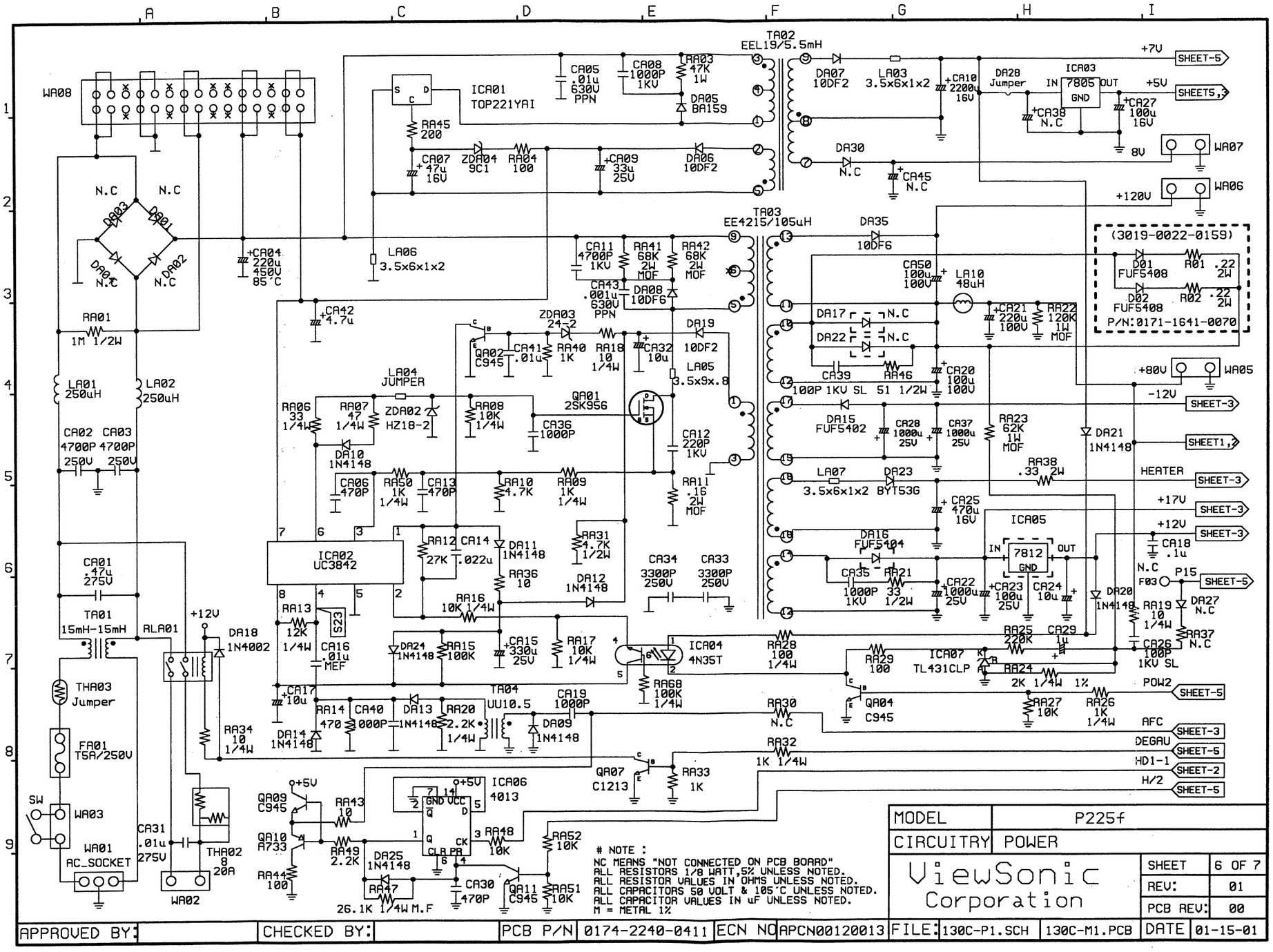
DATE 01-15-01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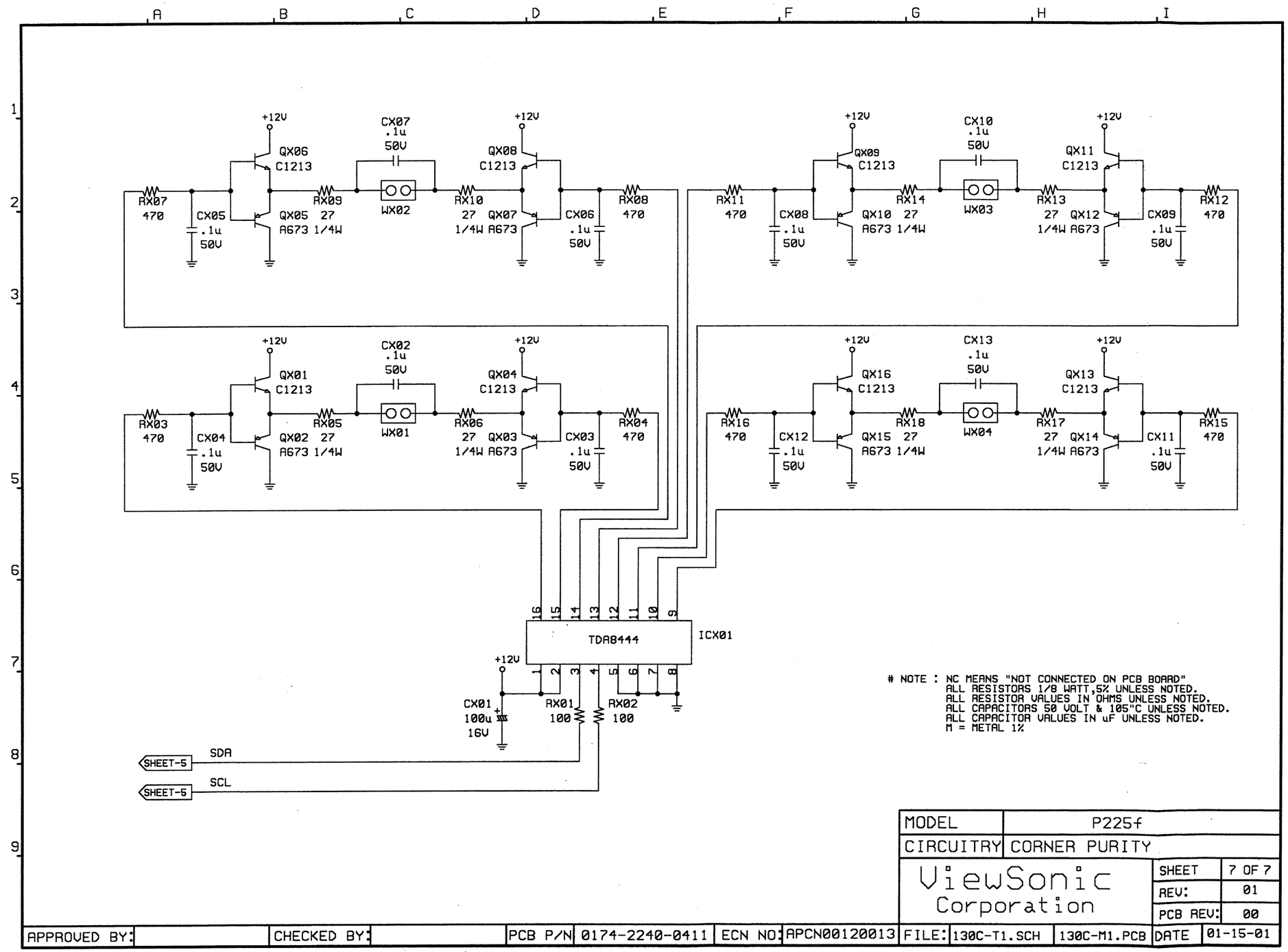
EEL19/5.5mH
ICA01
TOP221YAI
CA05 .01u 630V PPN
CA08 1000P 1KV
RA03 47K 1W
DA05 BA159
RA45 200
CA07 47u 16V
ZDA04 9C1
RA04 100
CA09 33u 25V
DA06 10DF2
DA07 10DF2
LA03 3.5x6x1x2
CA10 2200u 16V
DA28 Jumper
ICA03
7805
IN
OUT
GND
+7V
+5V
CA38 N.C
CA27 100u 16V
8V
DA30 N.C
CA45 N.C
WA07
WA06
+120V
WA08
N.C
DA03
DA01
DA04 N.C
DA02 N.C
CA04 220u 450V 85°C
LA06 3.5x6x1x2
TA03
EE4215/105uH
DA35 10DF6
CA50 100u 100V
LA10 48uH
(3019-0022-0159)
D01 FUF5408
R01 .22 2W
D02 FUF5408
R02 .22 2W
P/N:0171-1641-0070
CA11 4700P 1KV
RA41 68K 2W MOF
RA42 68K 2W MOF
CA43 .001u 630V PPN
DA08 10DF6
CA42 4.7u
ZDA03 24-2
QA02 C945
CA41 .01u
RA40 1K
RA18 10 1/4W
CA32 10u
DA19 10DF2
LA05 3.5x9x.8
RA01 1M 1/2W
LA01 250uH
LA02 250uH
LA04 JUMPER
RA06 33 1/4W
RA07 47 1/4W
ZDA02 HZ18-2
DA10 1N4148
RA08 10K 1/4W
CA36 1000P
QA01 2SK956
CA12 220P 1KV
RA11 .16 2W MOF
CA02 4700P 250V
CA03 4700P 250V
CA06 470P
RA50 1K 1/4W
CA13 470P
RA10 4.7K
RA09 1K 1/4W
RA31 4.7K 1/2W
DA12 1N4148
CA34 3300P 250V
CA33 3300P 250V
ICA02
UC3842
RA12 27K
CA14 .022u
DA11 1N4148
RA36 10
RA16 10K 1/4W
CA01 .47u 275V
TA01 15mH-15mH
RLA01
+12V
DA18 1N4002
RA13 12K 1/4W
CA16 .01u MEF
S23
DA24 1N4148
RA15 100K
CA15 330u 25V
RA17 10K 1/4W
ICA04 4N35T
RA68 100K 1/4W
RA28 100 1/4W
RA29 100
ICA07 TL431CLP
RA24 2K 1/4W 1%
RA25 220K
CA29 1u
DA20 1N4148
RA19 10 1/4W
DA27 N.C
CA26 100P 1KV SL
RA37 N.C
THA03 Jumper
FA01 T5A/250V
SW
WA03
WA01 AC_SOCKET
CA31 .01u 275V
THA02 8 20A
WA02
CA17 10u
RA14 470
CA40 000P
DA13 1N4148
RA20 2.2K 1/4W
TA04 UU10.5
CA19 1000P
DA09 1N4148
DA14 1N4148
RA34 10 1/4W
QA07 C1213
RA33 1K
RA30 N.C
QA04 C945
RA27 10K
RA26 1K 1/4W
RA32 1K 1/4W
+80V
-12V
HEATER
+17V
+12V
POW2
AFC
DEGAU
HD1-1
H/2
SHEET-5
SHEET-3
SHEET1
SHEET-2
CA21 220u 100V
RA22 120K 1W MOF
DA17 N.C
DA22 N.C
CA39 100P 1KV SL
RA46 51 1/2W
CA20 100u 100V
DA15 FUF5402
CA28 1000u 25V
CA37 1000u 25V
RA23 62K 1W MOF
DA21 1N4148
RA38 .33 2W
LA07 3.5x6x1x2
DA23 BYT53G
CA25 470u 16V
ICA05
7812
DA16 FUF5404
CA35 1000P 1KV
RA21 33 1/2W
CA22 1000u 25V
CA23 100u 25V
CA24 10u
CA18 .1u
N.C
P15
F03
QA09 C945
QA10 A733
RA43 10
RA49 2.2K
RA44 100
DA25 1N4148
RA47 26.1K 1/4W M.F
ICA06 4013
RA48 10K
CA30 470P
QA11 C945
RA52 10K
RA51 10K
NOTE :
NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105°C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%
MODEL P225f
CIRCUITRY POWER
ViewSonic Corporation
SHEET 6 OF 7
REV: 01
PCB REV: 00
APPROVED BY:
CHECKED BY:
PCB P/N 0174-2240-0411
ECN NO APCN00120013
FILE: 130C-P1.SCH 130C-M1.PCB
DATE 01-15-01



NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

APPROVED BY:		CHECKED BY:		PCB P/N	0174-2240-0411	ECN NO:	APCN00120013	FILE:	130C-T1.SCH	130C-M1.PCB	DATE 01-15-01

MODEL	P225f
CIRCUITRY	CORNER PURITY
ViewSonic Corporation	SHEET 7 OF 7
	REV: 01
	PCB REV: 00

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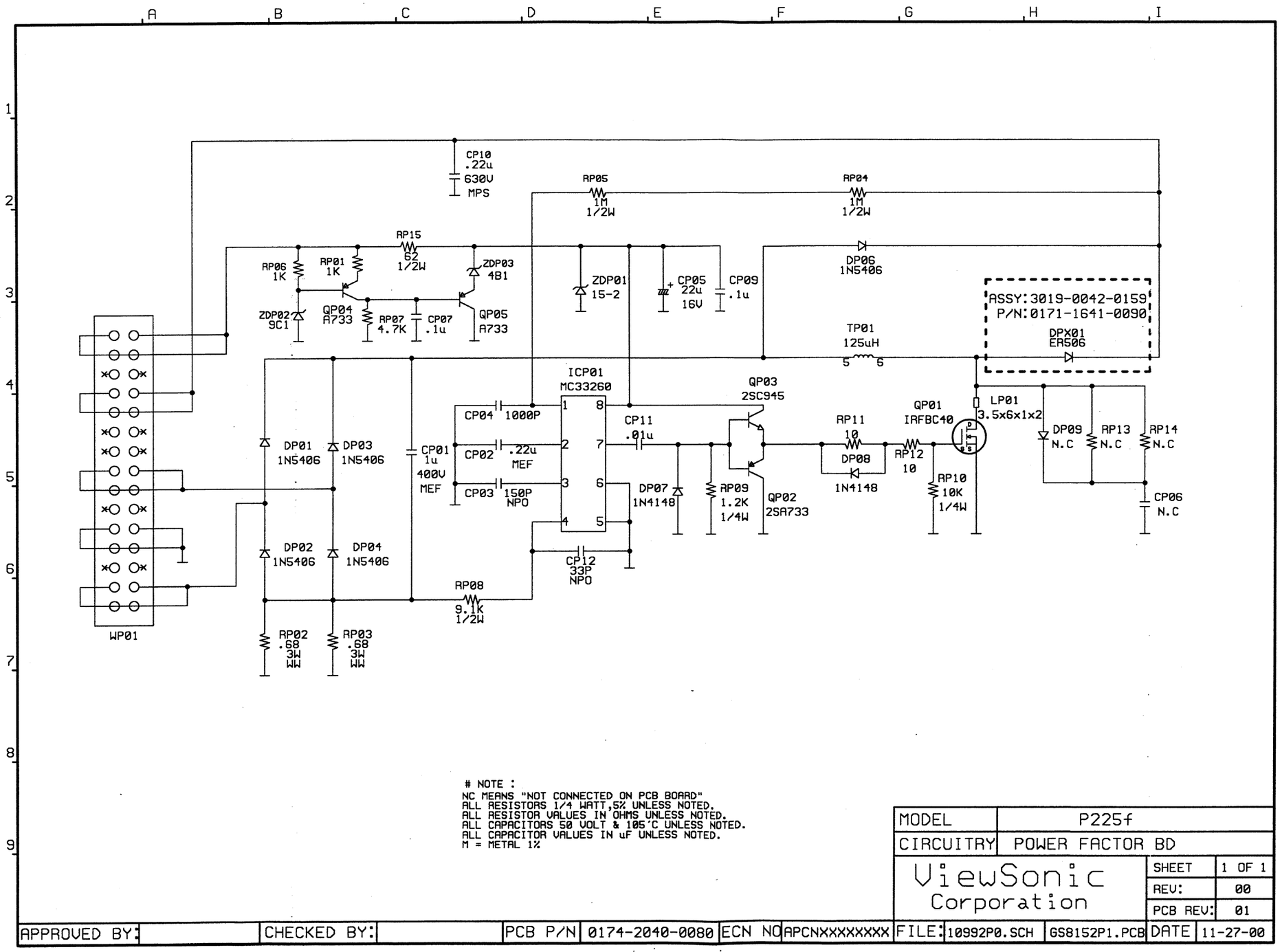
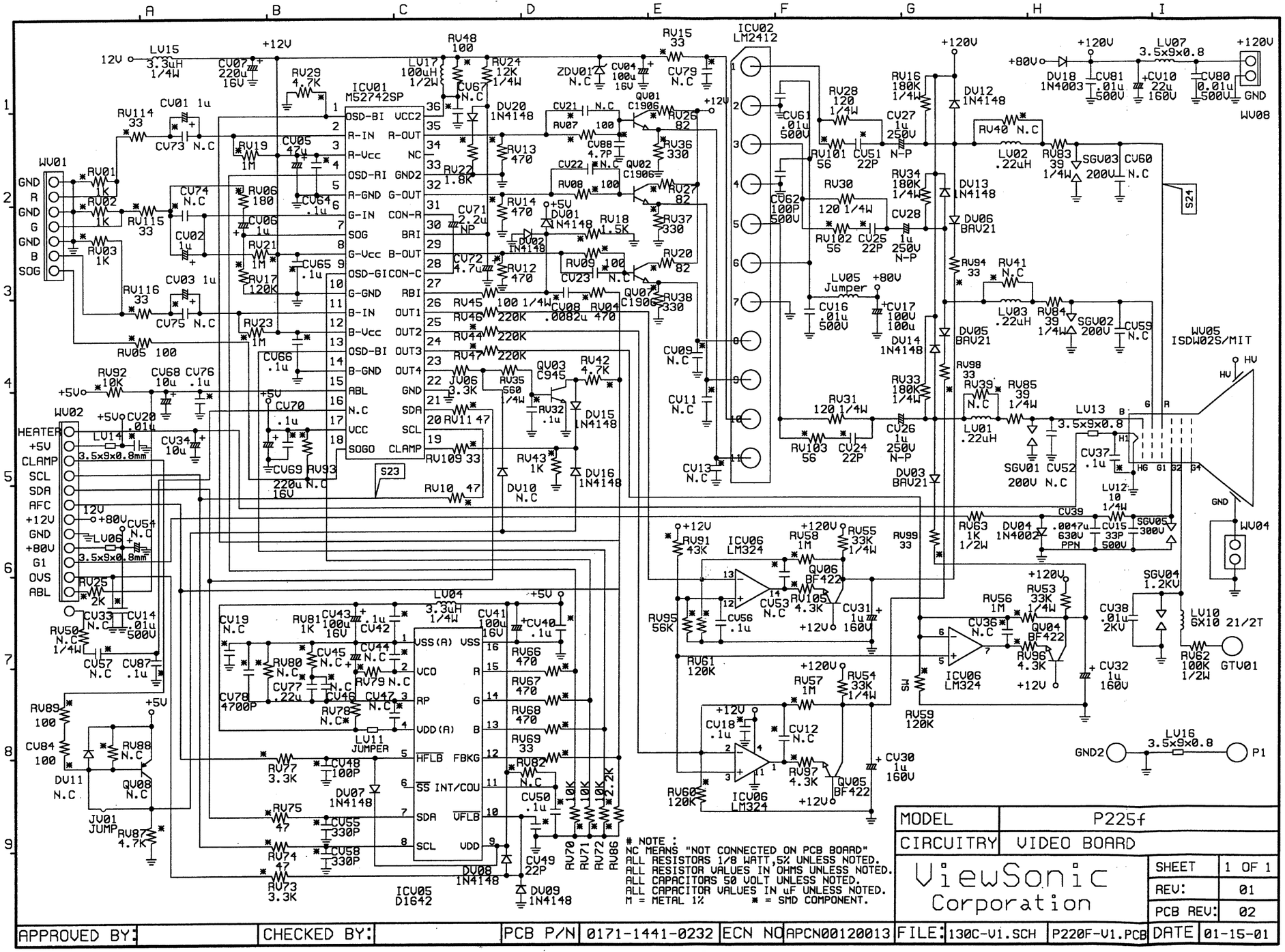


NOTE :
NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/4 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105'C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

APPROVED BY:		CHECKED BY:		PCB P/N	0174-2040-0080	ECN NO	APCNXXXXXXXX	FILE:	10992P0.SCH	GS8152P1.PCB	DATE 11-27-00

MODEL	P225f
CIRCUITRY	POWER FACTOR BD
ViewSonic Corporation	SHEET 1 OF 1
	REV: 00
	PCB REV: 01



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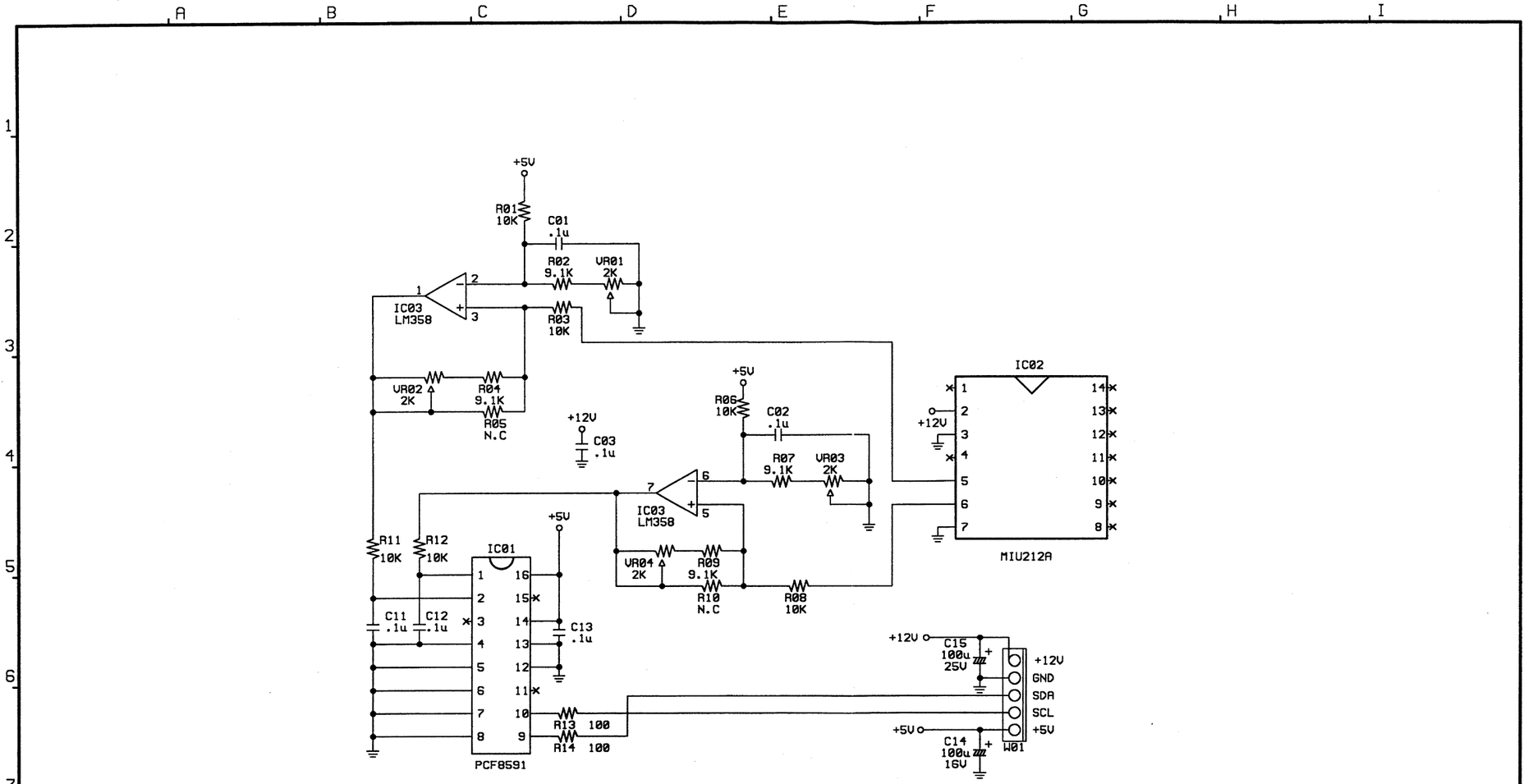
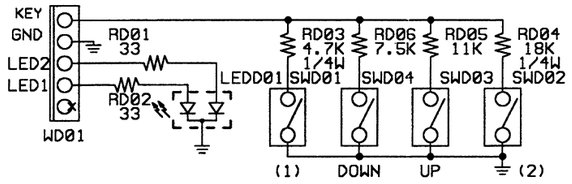


NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

APPROVED BY:		CHECKED BY:		PCB P/N	0174-3540-0011	ECN NO	APCN00120013	FILE:	AUTO-PU1.SCH	AUTO-PU2.PCB	DATE	01-15-01

MODEL	P225f
CIRCUITRY	PURITY BD
ViewSonic Corporation	SHEET 1 OF 1
	REV: 01
	PCB REV: 00



P/N:0170-1740-0120

NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

APPROVED BY:		CHECKED BY:		PCB P/N	0170-1740-0120	ECN NO	ECN00-XXXX	FILE:	VG21-D00.SCH	P775D000.PCB	DATE 05-30-00

MODEL	P225f
CIRCUITRY	DISPLAY BD.
ViewSonic Corporation	SHEET 1 OF 1
	REV: 00
	PCB REV: 00

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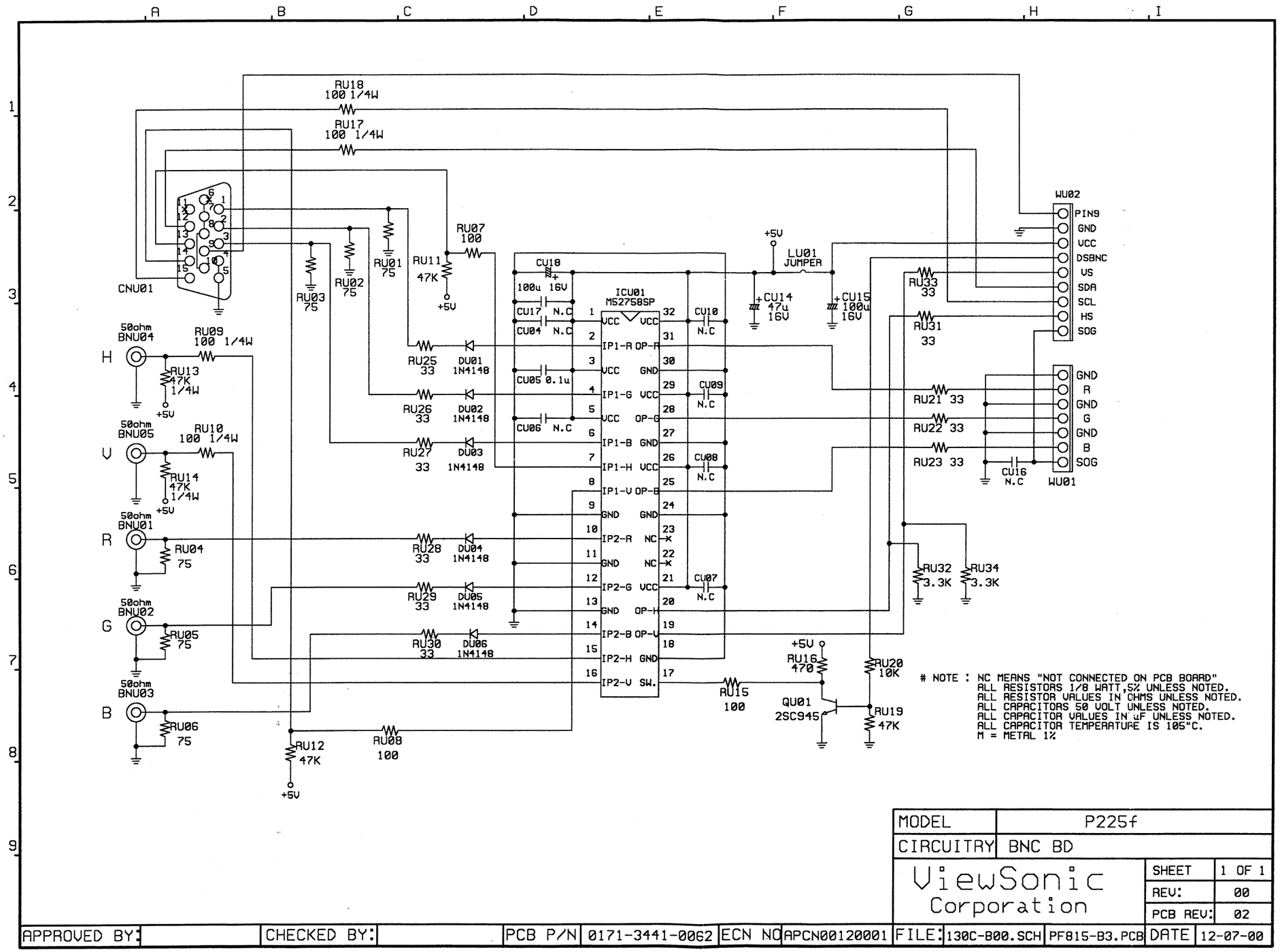

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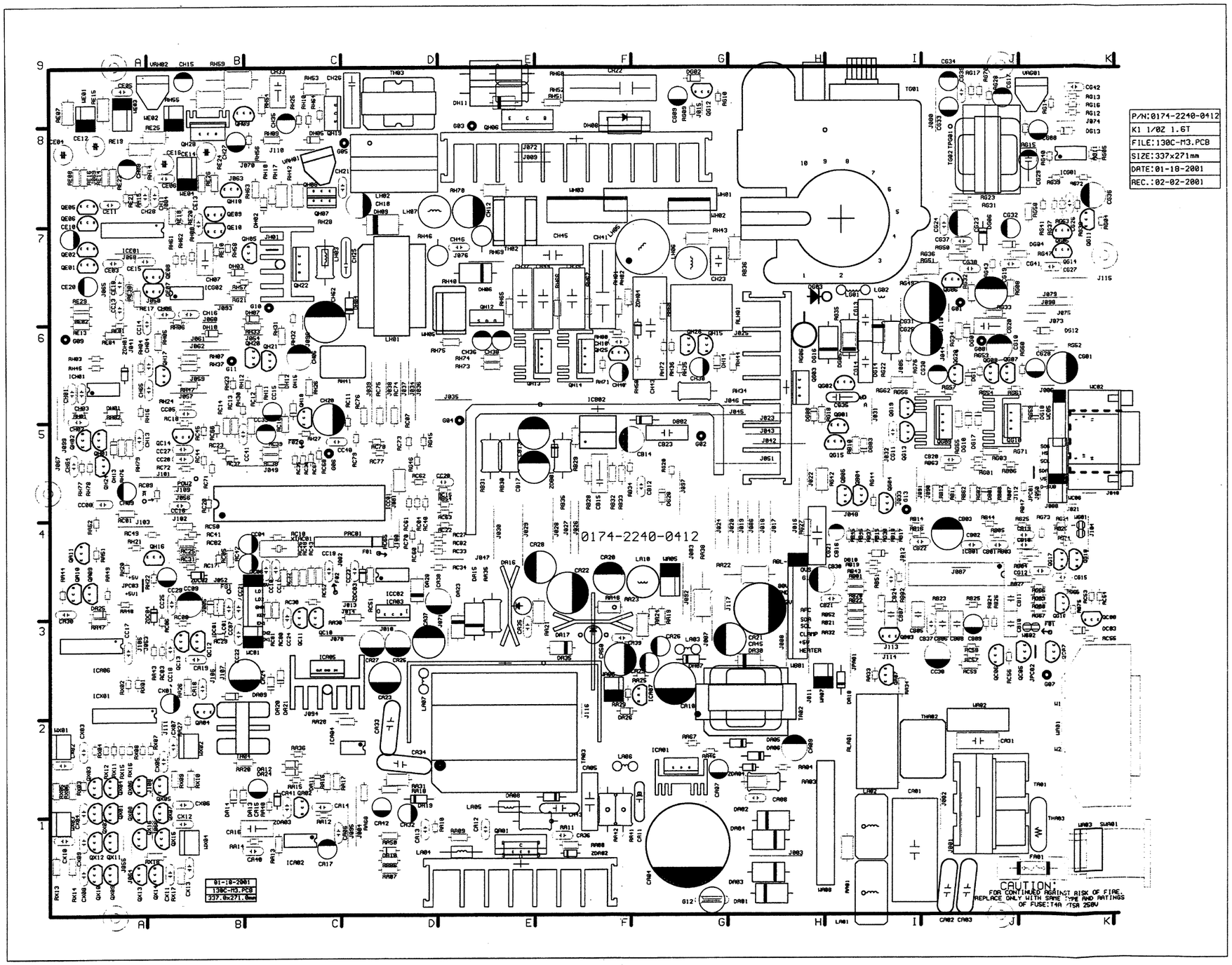
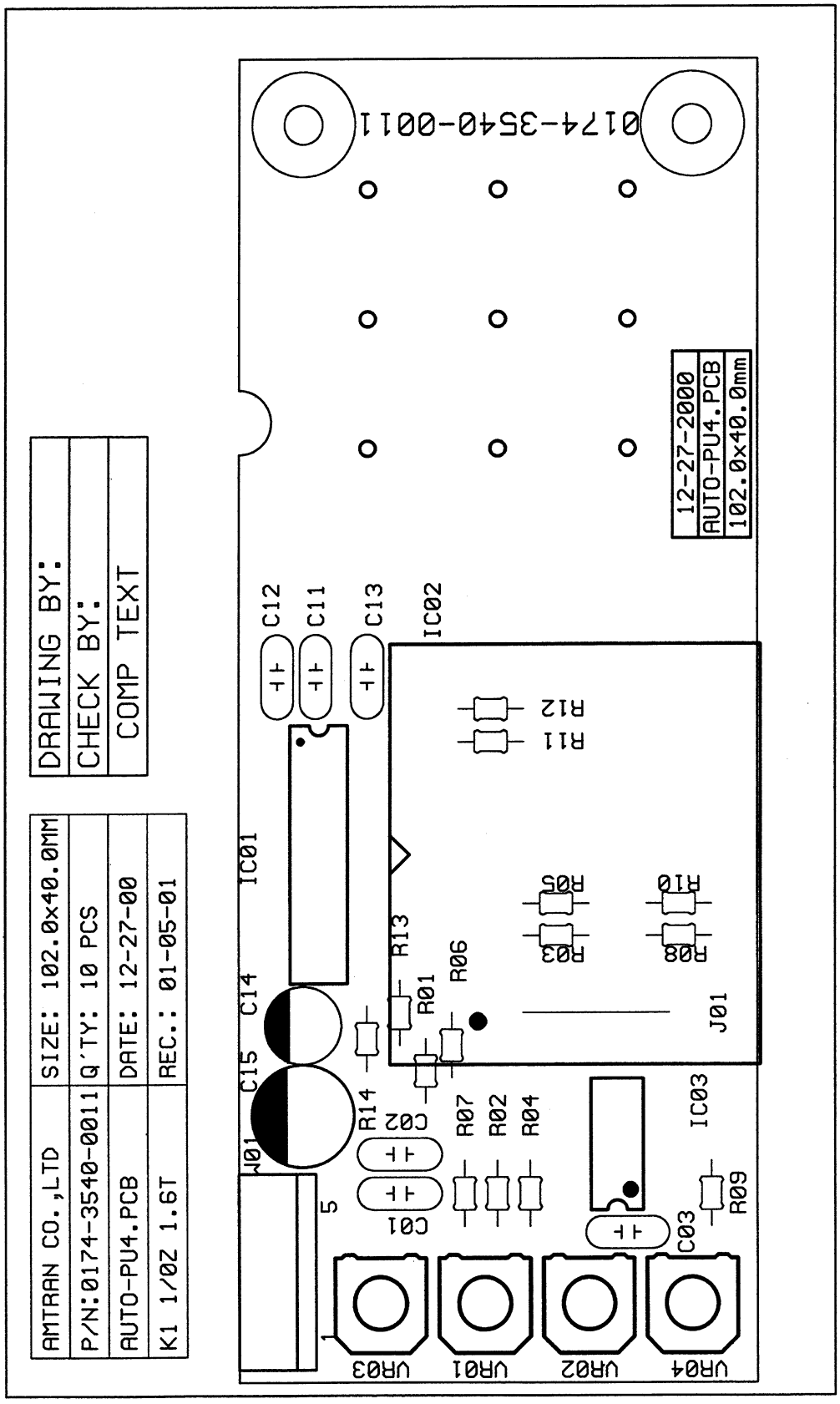
Chapter 14. PCB Layouts


P/N:0174-2240-0412
K1 1/0Z 1.6T
FILE:130C-M3.PCB
SIZE:337x271mm
DATE:01-18-2001
REC.:02-02-2001
0174-2240-0412
01-18-2001
130C-M3.PCB
337.8x271.0mm
CAUTION:
FOR CONTINUED RAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE AND RATINGS
OF FUSE:T4A /TSA 250V



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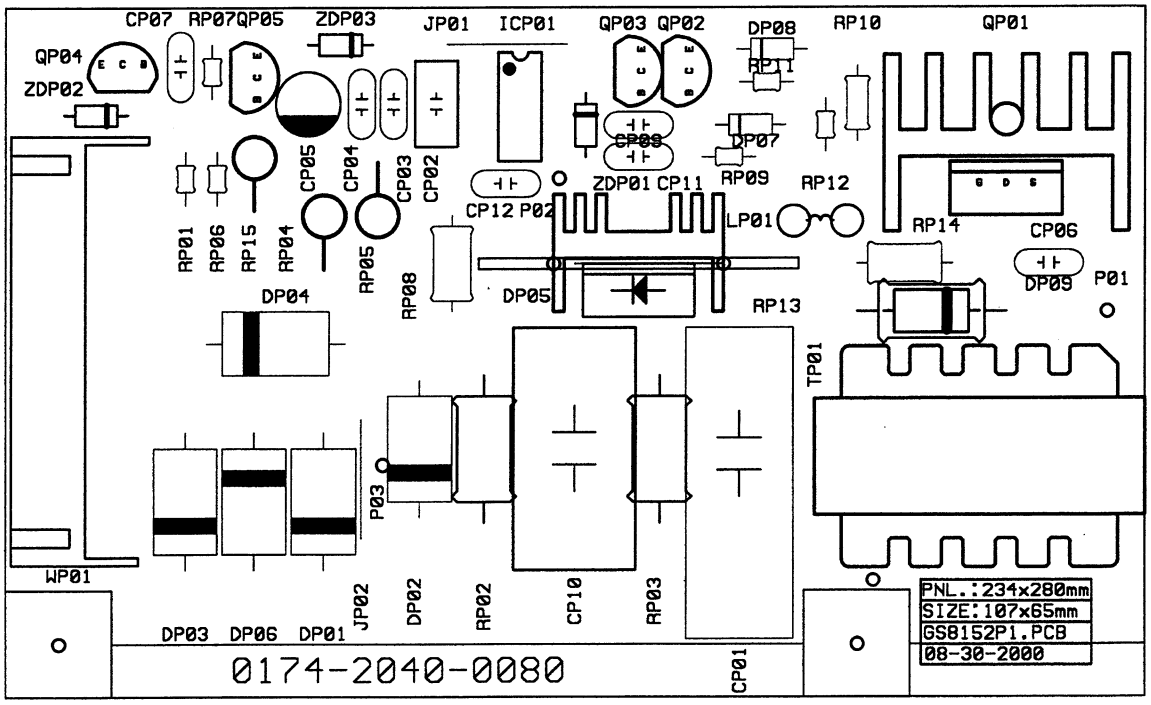

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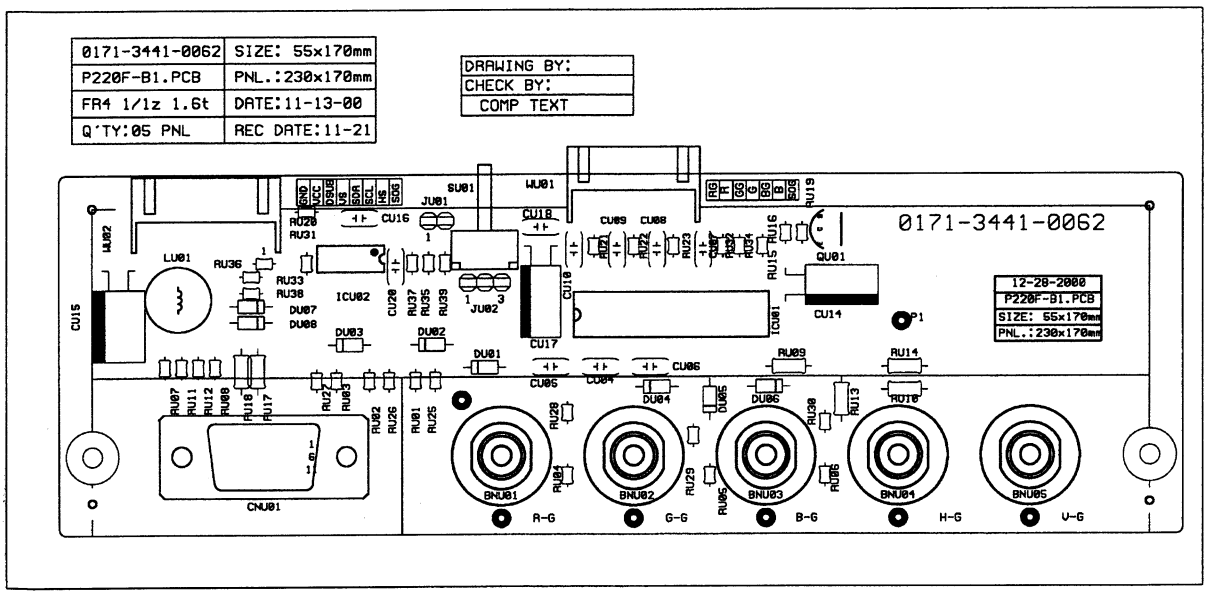

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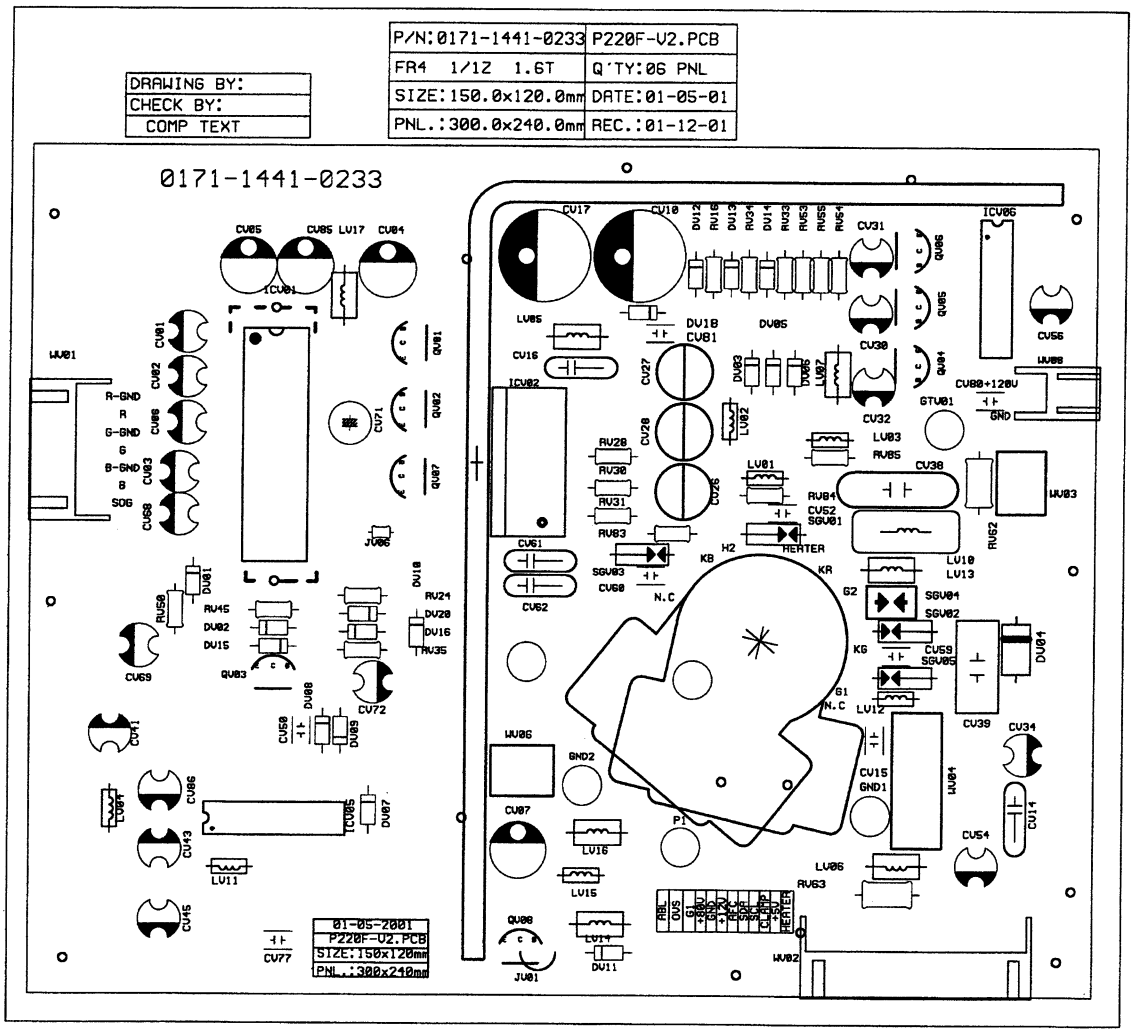

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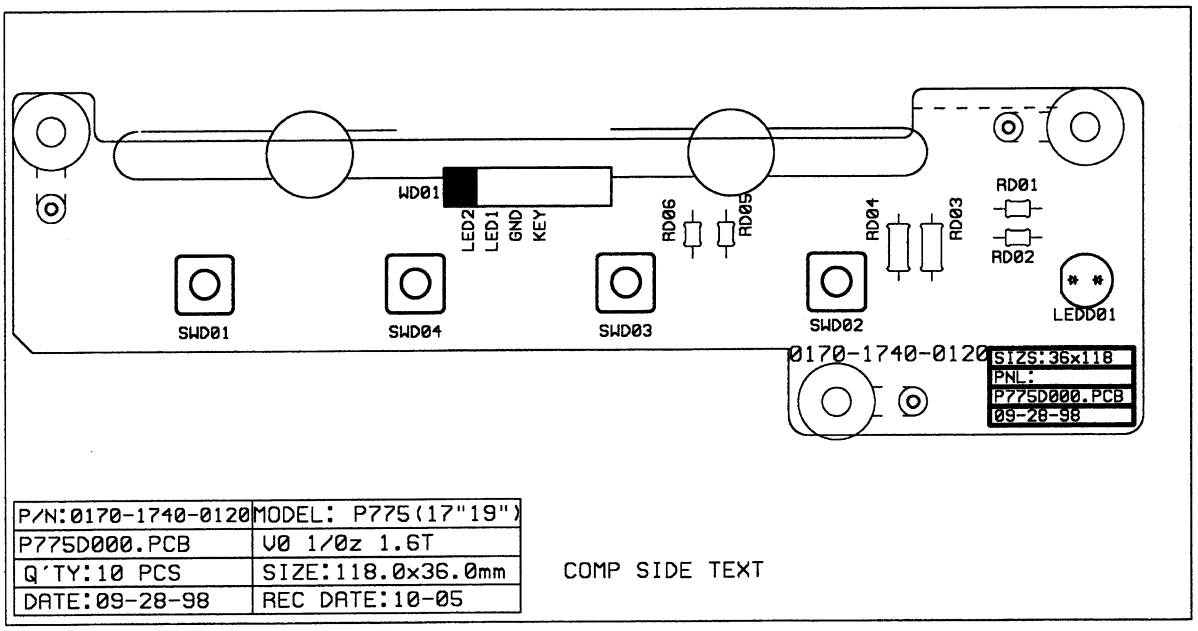

P/N:0170-1740-0120	MODEL: P775(17"19")
P775D000.PCB	V0 1/0z 1.6T
Q'TY:10 PCS	SIZE:118.0x36.0mm
DATE:09-28-98	REC DATE:10-05

COMP SIDE TEXT

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-MEMO-

Chapter 15. Exploded View and Parts List

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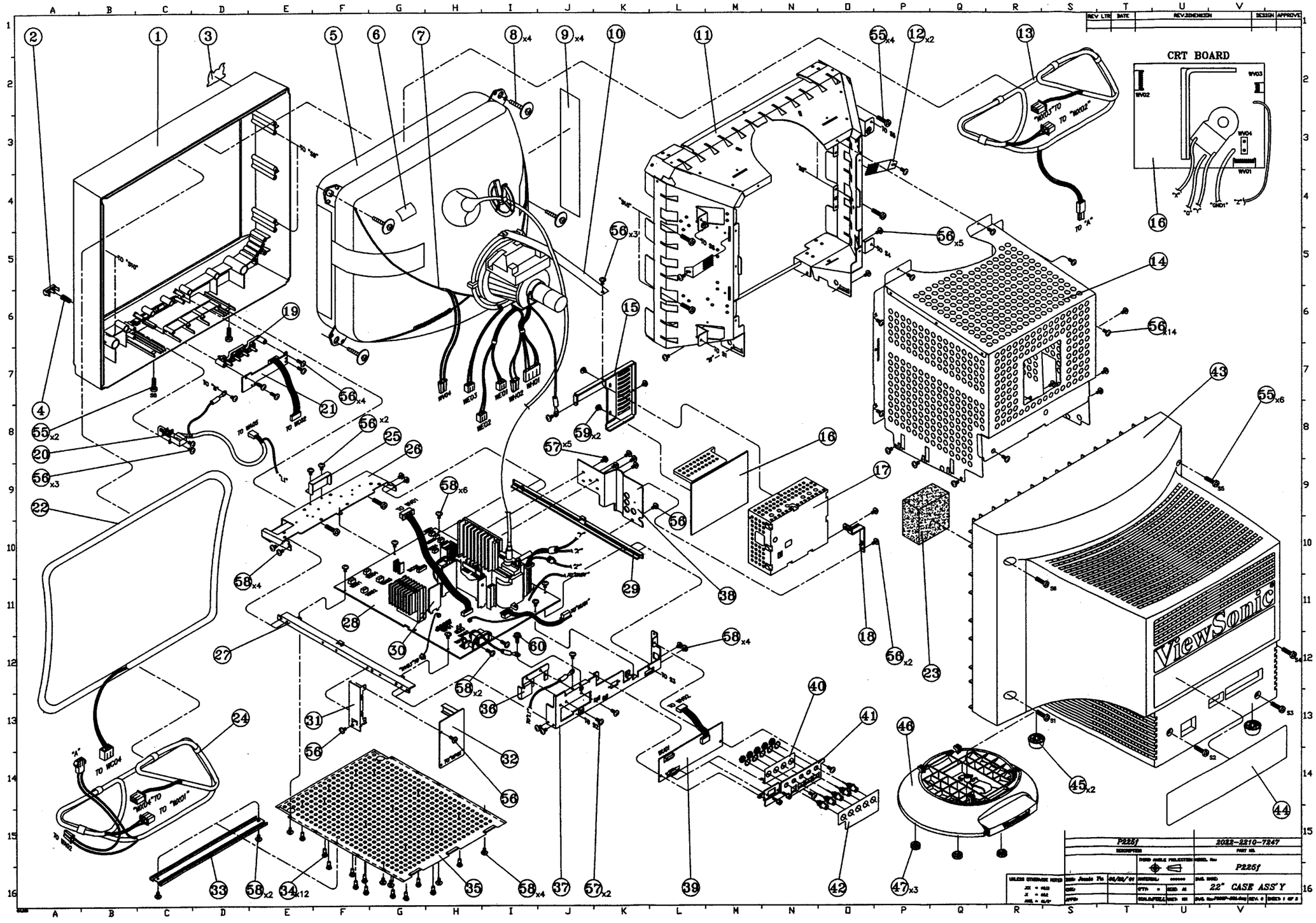
CRT BOARD
ViewSonic
P225f
2022-2210-7247
22" CASE ASS'Y

ITEM	PART NUMBER	PRODUCT DESCRIPTION
1	C-FP-0301-0313	BEZEL VIEWSONIC P220f G7397 PC+ABS
2	PL-NB-0707-0138	POWER KNOB G7397 PF775
3	M-MS-0808-4677	V.SONIC LOCO (AL.PLATE)
4	M-MS-0808-0041	SPRING /PT771/P795
5	E-CRT-0409-0179	CRT 22" M51LRY21X62 MIT. .25MM
6	M-LB-0813-0097	FDA WARNING LBL AT396D
7	M-MS-0808-6603	BRAID 0.12/112C 1015 #18 1070mm
8	M-SCW-0824-0483	SCREW,BPCTW #5.0*34*WASHER 16ZN-CC
9	M-MS-0808-1907	SHIELDING AL. TAPE (270.0*50.0)
10	M-MS-0808-6157	INSULATOR FOR YOKE(150mm*20mm)
11	M-MS-0808-6612	SHIELAING ASS'Y NOKIA 130C
12	M-MS-0808-6124	COPPER CLAW
13	M-MS-0808-6613	DEGAUSSING COIL 22"6.8ohm0.7*140Ts+CORNER PURITY
14	M-CV-0830-0220	SHIELDING COVER
15	M-MS-0808-4670	VIDEO BD SHIELDING
16	B-VB-0202-0291	VIDEO B0 ASS'Y NOKIA 130C
17	M-MS-0808-5202	CRT BD SHIELDING-A
18	M-MS-0808-1880	CRT BO BRACKET
19	PL-NB-0707-0147	FUNCTION KNOB G7397 PF775
20	M-SW-0815-0090	SW PUSH BUTTON SFDLD11E7U-AA
21	B-SB-0221-0206	ASS'Y DISPLAY BD PF775
22	E-L-0407-1373	PURITY COIL 22" 180ohm
23	M-MS-0808-1898	SPONGE 75LX75WX55T
24	M-MS-0808-6614	DEGAUSSING COIL 22"6.8ohm0.7*140Ts+CORNER PURITY
25	M-MS-0808-6120	CRT SUPPORT AT320DB
26	M-MS-0808-6605	CHASSIS BKT FRONT
27	M-MS-0808-6146	CHASSIS BKT RIGHT
26	B-MB-0201-0568	ASS'Y MAIN/PWR/CTRL BD P220F-2
29	M-MS-0808-6145	CHASSIS BKT LEFT
30	B-SB-0221-0246	ASS'Y DIODE OPTION BD P95F,P220F FOR DA17
31	M-MS-0808-6121	POWER FACTOR BRACKET
32	B-SB-0221-0257	ASS'Y POWER FACTOR BD GS815-2
33	M-MS-0808-6606	CHASSIS HOLDER
34	M-MS-0808-1844	SPACER SUPPORTS/FCB-10
35	M-MS-0808-5937	BOTTOM SHIELDING AT1097FB,AT1099DB
36	M-MS-0808-4661	AC BKT AT1099DA
37	M-MS-0808-4667	CHASSIS BKT REAR/AT897D
38	M-MS-0808-6610	HEAT SINK FOR EMI
39	B-SB-0221-0271	ASSN BNC BD NOKIA 130C

ITEM	VIEWSONIC P/N	VENDOR PART# DESCRIPTION
40	M-MS-0808-2832	GROUNDING PLATE
41	M-MS-0808-2831	BNC BRACKET AT897/PT771/P795
42	M-MS-0808-2835	BNC PLATE AT897/TP771/P795
43	C-BC-0302-0289	BACK COVER P220f PC+ABS D-SUB&BNC
44	M-LB-0813-0571	B/C LBL VIEWSONIC P200f-2
45	PL-PD-0714-0028	PLASTIC FOOT /GL-24H
46	C-BS-0303-0228	BASE(USB) ASS'Y G7398 PC+ABS NOKIA
47	PL-PD-0714-0029	BASE FOOT 18.8X5.8T
55	M-SCW-0824-0201	SCREW,BBC,M4*14L,Zn-Cc
56	M-SCW-0824-0199	SCREW,BTCW,M3*8L,Zn-Cc
57	M-SCW-0824-0151	SCREW,BTCW,M3*10L,Zz-Cc
58	M-SCW-0824-0150	SCREW,BTCW,M3*6L,Zn-Cc
59	M-SCW-0824-0432	SCREW,BTCW,M3*12L,Zn-Cc
60	M-SCW-0824-0198	SCREW,PBATW,M4*8L,Zz-Cc